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MOTIVATION, MANAGEMENT AND WORKFLOW IN SHORT-TERM MEDIA RELATED INNOVATION PROJECTS

VOLHA FURS

TAMPEREEN YLIOPISTO - UNIVERSITY OF TAMPERE

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Author:	Volha Furs
Supervisor:	Professor Gregory Ferrell Lowe
University:	University of Tampere / School of Communication, Media and Theatre
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Abstract

Innovation is a crucial component for sustainability in media economy and requires creativity and motivation on the part of the creative labor. The purpose of this thesis is to investigate the relationship between team members' motivation, managers' behavior and workflow. In particular, I examine the connection between motivation, autonomy supportive or controlling management behavior and the workflow in the innovation media related projects. The research strategy combines two theories: self-determination theory and the componential theory of creativity. The mixed-methods approach was applied to the case study of media related projects within Demola Tampere innovation platform during autumn campaign 2017. The approach consists of qualitative semi-structured interviews and a quantitative survey. The study reveals the importance of the leadership and team members' personal motivation for the workflow.

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Motivation, Management and Workflow in Short-term Media Related Innovation Projects

Introduction

The purpose of this thesis is *to investigate the relationship between team members' motivation, management and workflow in the media related innovation projects.* Using the research strategy that combines two theories about innovation process and motivation, in particular, self-determination theory (Deci, & Ryan, 1985) and the componential theory of creativity (Amabile, 1997), I examine *the connection between motivation, autonomy supportive or controlling management behavior and the workflow in the innovation media related projects.*

Media industries belong to creative industries, a component of creative economy which also includes copyright industries, patent industries, trademark industries (brandbuilders), and design-led industries (forming matters more than content) (Florida, 2014a). The main features of creative economy are "decentralization, fragmentation, risk, uncertainty, intangibility, and individualism" (Bilton, 2012a, p.xx). The products of creative economy fall into the category of commodities, 'symbolic goods' (Bourdieu, 1985), the economic value of which goes beyond the production process and the quality of the final products and includes the distribution process as well as the perception of goods by the audience. Thus, as a 'symbolic good', the success of the idea depends on the reception of the content, or the way the idea is developed, presented and interpreted (Bilton, 2012a).

From the labor perspective, creative economy is distinguished by self-employment, high competition, piecework employment, temporary project-based job contracts, microbusiness and multitasking (Deuze, 2007, p. 66). Due to short-term job contracts, creative workers build their career while floating between projects and media enterprises. In order to be able to work in such a hectic environment and produce engaging media content, workers of

creative industries are required to own a certain set of skills and experiences, which a number of social researchers (Amabile, 1997; Bilton, 2012a; Kozbelt et al., 2010) call creativity. In the context of this thesis, creativity is considered as the ability to come up with a new idea (an approach, a combination, a business model, a media product, and etc.) which serves specific purpose and is valuable for the society or in a particular context (Bilton, 2012a; Amabile, 1997). Consequently, creativity is considered to be an essential component of the innovation process and content production in media industries. The ability to produce innovative products has direct impact on the long-term success of the media companies and enterprises in creative industries (Amabile, 1997; Storsul & Krumsvik, 2013). Therefore, since innovation is crucial for sustainability in the highly competitive environment of media industries (Storsul & Krumsvik, 2013, p. 19), management of short-term media projects also constitutes management of creativity and the management of innovation projects (Bilton, 2012b; Masalin, 2015; Lundin, 2016).

Noteworthy, that the distinction between the management of innovation and the management of creativity is blurry because of the relatedness of these two concepts: creativity and innovation. Furthermore, the managers in cultural production industry in the context of micro-business and project-based labor are deeply involved in the production process and have become a part of the creative team through collaborative approach to decision making and sharing the responsibilities (Bilton, 2011, p. 35). It is important to draw a distinction between a superficial image of a manager as a creative maverick which, for example, Bilton (2012d, p. 67) underlines when referring to modern tendencies in the management of media corporation. On the contrary, the flat hierarchies of small media enterprises (in opposition to big media corporations where the segregation between ‘suits’ and ‘creatives’ is based on the separation of responsibilities) and practical background in the industry of the managers themselves obfuscate the division between the creative team and the project management and implies

multitasking and sharing responsibilities among all team members (including the managers) (Bilton, 2011; Deuze, 2007). Therefore, managers need to know both how to facilitate the process by being a part of it as well as be appropriately motivated to participate in the production process and be ready to take a risk (Deuze, 2007, p. 65).

According to researchers in the area of management and psychology (Deci & Ryan, 2008, 2012, 2017; Bilton, 2012c; Amabile, 1997; Gillet et al., 2012; etc.), motivation is a key component of an effective performance in any given domain and is essential for the innovation process and creative problem-solving. Motivation encompasses reasons for one's behavior which are based on internal and external stimuli. The reason behind motivation being so important for the innovation process lies in the link between motivation and a *subjective vitality*, or *energy that is available to the self* (Ryan & Deci, 2017, p.258). This, in turn, results in *creative adjustments*, or the ability to "integrate inner and outer inputs into coherent actions" (Ryan & Deci, 2017, p. 241), and strong interest in arriving at an ingenious solution (Amabile, 1999).

The quality of the motivation, or the combination of reasons to involve in the activity, has influence on the production process as well as the final product (Deci, 2012). In order to deliver a valuable product, on the one hand, the members of the company, or specifically those who are directly involved in the production process, need to possess certain type(s) of motivation which allows them to be both creative and efficient. On the other hand, it is in the employer's interests to provide the work environment (in the context of this thesis, the social factors, including the management behavior) that supports effective workflow and is conducive to the creativity of the employees.

In this thesis the theoretical framework is built on two theories which provide knowledge about relationship between different behavior styles of superiors (teachers, coaches, managers, etc.) and the motivation level of their subordinates: componential theory of

creativity (Amabile, 1983) and self-determination theory (Deci, & Ryan, 1985). The componential theory of creativity identifies motivation as one of four main components affecting the innovation process and proposes a componential framework of creativity that describes the innovation process on the individual and organization levels. In turn, self-determination theory (SDT) is the most tested and experimented theory of motivation that introduces a wide spectrum of different types of motivation and studies the relationship between motivation and autonomy - one of three basic psychological needs which are essential for professional efficiency and personal wellness (Ryan, & Huta, 2009; Ryan, & Deci, 2017). According to SDT, autonomy supportive behavior is the most nurturing for the innovation process (Ryan, & Deci, 2017). Therefore, both theories link the level of motivation with the quality of one's performance and argue that motivation is essential for the innovation process (Amabile, 1997; Gagné & Deci, 2005; Powell, 2008; Deci & Ryan, 2008; Gillet et al., 2012; Dackert, 2016). This is important for my study because it helps to understand what kind of motivation is conducive to the innovation process and what kind of management behavior facilitates the team members' motivation and affects the workflow in the media related projects.

Despite the fact that SDT and componential theory of creativity are based on numerous studies, this thesis contributes to filling the following gaps in the published research:

- the lack in studies of motivation in short-term media related projects;
- the limited amount of research on creativity in not controlled (laboratory) environment;
- the lack of the research on cases where participants are initially motivated to take part in innovation projects, and who are chosen based on their motivation;
- the shortage of research on innovation projects where one of the main benefits to participate is not the monetary reward;

- the dearth of studies on the innovation process in short-term projects in the context of open innovation platforms and smart city societies.

In particular, considering the studies within SDT, research has been done mainly in the field of education, sports, health and family life. Even though some studies were conducted within organizations, the theory was mostly tested in the laboratory environment. Furthermore, SDT concepts have been tested in media related or innovation projects but the amount of such studies is very limited (Vallerand & Pelletier, 2008). In addition, research of the case studies where participants are initially motivated in the task itself is scarce thus highly needed.

The componential theory of creativity is also built on studies that were conducted in the controlled (laboratory) environment or without measurement of initial task motivation. Numerous qualitative and quantitative studies in a variety of professional domains have provided a general vision about the management behavior and factors which influence the motivation of labor (Amabile, 1998; Powell, 2008; Bilton, 2012c; Gillet et al, 2012; Yeh-Yun Lin & Liu, 2012). However, the investigation was mainly focused on the expert evaluation of the level of creativity of outcomes (Amabile, 1983) and there is no specific knowledge about the influence of management on motivation and workflow in short-term media related projects, especially in the context of open innovation platforms.

Since the purpose of this thesis is to investigate how autonomy supportive or controlling types of management behavior affect the motivation of the team members and workflow in the innovation media related projects, I introduce four specific research questions which help to answer the main question:

1. *What was the initial motivation of team members to participate in the project?*
2. *What is their motivation during the project?*
3. *How do team members perceive the manager's behavior on the spectrum between autonomy supportive and controlling?*

4. *What are the results and how was the group dynamic?*

The current paper is based on the case study research of the innovation media related projects in Demola Tampere during autumn campaign 2017. The choice to study Demola media related projects has several advantages. First of all, due to the absence of any psychological tests or personal interviews, Demola Tampere teams' formation is based on students' educational background, experience, activities and motivation to participate in the selected project.

Second, due to the lack of experience and contingency of the monetary reward, the application and further commitment of team members mostly depend on their interest in a particular project. Correspondingly, their motivation to participate in Demola is initially balanced with motivation that is more related to personal goals and values. This element was lacking in previous research about creativity and motivation.

Third, Demola Tampere projects are innovative and have an heuristic nature, which means that the participants find the solution by the trial-and-error approach. Fourth, due to the innovative nature of projects in Demola, every case is assigned to a multidisciplinary international team. The teams are quite independent and team members initially do not have fixed roles so the final package depends on self-organization and activity of the team members. In addition, the lack of expertise of the participants is compensated by their interest in the project which has direct impact on their readiness to gain knowledge and cooperate within a team to deliver valuable results. Thus, the case is well suited to investigate the research questions for this study.

The research design is a mixed-methods approach: a quantitative survey among the participants in the media related Demola Tampere projects and qualitative interviews with the Demola Tampere facilitators. The qualitative approach has two phases: before the quantitative survey (the first phase of the research) and after it (the third phase of the research). The

quantitative survey is the second phase of the research. The first phase of the research was exploratory and consisted of interviews: it investigated whether the case is appropriate for the current study and indicated the key terms, the variables and components of the process. The second phase, the quantitative approach in a form of a survey, was conducted before the end of the Demola Tampere projects and provided a general view on students' motivation to participate in the innovative projects, investigated the overall motivation to engage in the tasks related to the Demola Tampere projects and evaluated the management in the teams. The third phase of the research was qualitative. It consisted of interviews and took place after the end of the projects to collect information about the workflow and the management in the team from the facilitators' perspective.

The findings of this research contribute to the existing theory through the means of academic study and with experiment-based inquiry on the relationship between motivation and innovation processes of media products and advance the knowledge about management of the creative teams in media industry. This study also investigates the applicability of the findings in innovation management and creativity management literature to the field of media management. This meets the needs of media managers because it strengthens the sustainability of media companies and enterprises in the context of creative economy.

Chapter 1. Literature Review

The structure of this chapter is organized around three concepts which form a core for the theoretical framework for this thesis: in particular, creativity, motivation and team work. Each section of this chapter is devoted to the elaborate description of these milestones as well as conceptual connection between them. The relation between sections and the relation between the concepts is also provided in the Figure below.

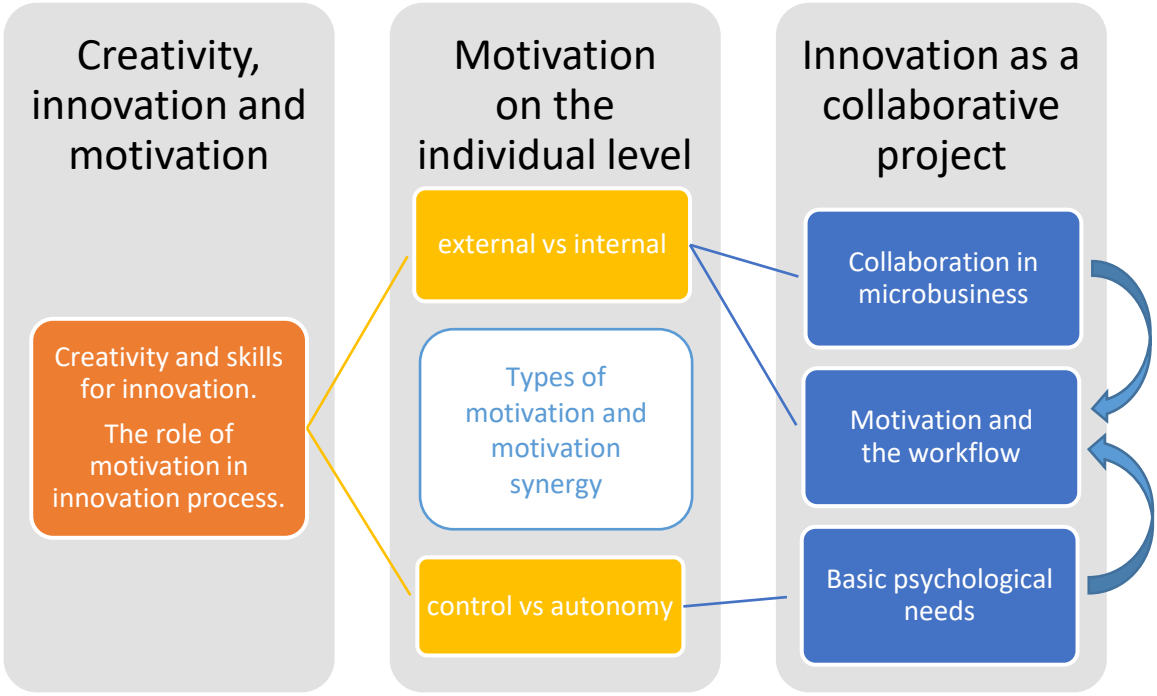

Figure 1: The concept map of the theoretical framework for this thesis (Author's own).

In the first section of the current chapter, I connect creativity with innovation and explain why innovation is important for the sustainability of the enterprise in the context of creative economy. I also expand on the skills which are important for the innovation process on the individual level and, afterwards, introduce the relation between creativity and motivation and explain why this nexus is important for this study.

In the next section I take a closer look on the motivation on the personal level and introduce taxonomy of motivation. The main goal of this section is, on one hand, to conceptualize motivation as the combinations of external and internal stimuli in different proportions and, on the other hand, to look at motivation from the perspective of autonomy and

control. This is especially important because it provides the parameters to be operated during the data collection and gives grounds to link motivation and social environment in the next section.

In the third section of this chapter I look at innovation as a result of collaborative work. In particular, I look at characteristics of the collaborative work in the context of microbusiness in creative economy, highlight the importance of the social environment for the motivation and introduce individual skills and environmental factors which conduce and diminish motivation of the members in the innovation teams.

1.1. Creativity, Innovation and Motivation

The main purpose of this section is to introduce the characteristic of the industry, where the object of this study belongs, and to develop the criteria according to which I will choose the case study, appropriate for this thesis purpose. The focus of this thesis is on the short-term media related projects, so the design of the framework implies the features of the microbusiness in creative economy. I will draw a connection between creativity, innovation and sustainability in creative economy. I also define a skillset, which is essential for the innovation process and which describes the subjects of the study on personal level. In relation to the theoretical framework, the components and skills at the service of innovation process create a basis to introduce different types of motivation that I am going to expand on in section 1.2.

There are several creativity theories in the academic literature that are rooted in the vastness of the concept and its application to analysis in numerous fields of social domains.

> "To understand creativity in all of its richness, there is a need for moderation, where no one theoretical perspective is emphasized at the expense of others. Another way to consider moderation in this context is to emphasize pluralism, whereby a multitude of theoretical perspectives, with different assumptions and methods, and operating at different levels of analysis, all (ideally) contribute to a more robust - if at times contestable - understanding of human creativity" (Kozbelt et al., 2010, p. 21).

With that in mind, this thesis defines creativity in the context of product development and sustainability of media enterprises in the creative economy.

The distinction between creativity and innovation in the management literature is not clear and Chris Bilton's (2012b) definition encompasses two key components: *novelty* (innovation) and *value* (usefulness). *Novelty* is the outcome of the ability to combine "different ideas into new and unexpected patterns" (Bilton, 2012a, p.xiv). Those patterns mean to bring *value* to the society by solving a problem or serving specific purposes. The factor of utility in the definition of creativity also derives from the psychological experiments where one's ability to solve problems was the measurement of the creative skills (Amabile, 1997).

Before moving on to the discussion about the role of creativity in the innovation process, it is important that I make the following distinction between discovery, invention, improvement and innovation.

a. *Discovery* is finding out something (information, land, etc.) that has been unknown.

b. *Invention* represents a new technological solution or revolutionary way of handling things and its Latin ancestor is "invenire", which means "discovery".

c. *Improvement* is the result of making something better (easier, nicer, more convenient to use, more understandable, etc.).

d. *Innovation* is a new combination of elements or a new approach in usage of the technology that solves the existing problem or relieves the pain of the user/customer. It is also a new idea, application or technique in practice that is beyond of what is already known (Śledzik, 2013, p. 90).

As noted above, innovation does not happen in a vacuum and according to the research in the area of management in the domain of creative industries (Amabile, 1997; Bilton, 2012a; Kozbelt et al., 2010), innovation is directly connected with the sustainability in business while creativity is essential for the generation and development of innovative ideas (Amabile, 1997,

p. 40). This requires certain professionals, defined by Florida as 'creative class' (2014a), who are able to work in frenzied environments of creative industries and possess certain set of skills to produce innovative products (Bilton, 2012).

The importance of creativity for innovation stems from the challenges which innovations deal with: the problems in innovation projects belong to the realm of heuristic tasks: that means, "the path to the solution is not completely straightforward" and the goal might not be clearly identified (Amabile, 1996, p. 35)[1]. To find a solution, individuals should be able to work in a 'wondering' state of mind, which imply the application of the following personal skills: associating, questioning, observing, networking and experimenting (Dyer et al., 2011). The propensity to perceive creatively and use wide categories corresponds to the ability "to take advantage of serendipity by recognizing the importance of new information" (Amabile, 1996, p. 88-89). These skills facilitate and elaborate the creative process and describe the activities happening during the development of innovative products. The absence of conformity in thinking and independence from social approval (Crutchfield, 1962), breaking perceptual and cognitive sets (and exploring new cognitive pathways) as well as breaking out of performance "scripts"/algorithms" which means the ability to withdraw from the pattern to solve a problem in a given domain are the features of creative behavior (Amabile, 1996). These characteristics might seem rebellious and outrageous but the ability to combine them allows the creator to question the routine and reconstruct existing patterns.

Noteworthy, despite a variety of models depicting innovation and creative thinking processes on individual, group and organizational levels (Woods, 2015), some of the innovation models contain an iteration stage of generated ideas through the innovation cycle before the appropriate and workable solution is finally chosen. Iteration requires creative

[1] By contrast, "algorithmic tasks are performed according to some logic or rules" and do not require new approach, have unambiguous goal and the solution to them is clear and developed (Rasmussen in Bedny & Bedny, 2018, p.372).

workers to switch between two types of thinking: divergent and convergent thinking. The table below contains features that differentiate them:

Divergent thinking	*Convergent thinking*
a) thinking around or away from the problem	a) think through or into the problem
b) discontinuity / break	b) continuity
c) 'dig another hole'	c) 'dig deeper hole'
d) spontaneous, informal, random	d) systematic, formal, focused
e) remove constraints	e) work within constraints
f) subconscious process	f) conscious process

Table 1: The characteristics of divergent and convergent types of thinking (Bilton, 2012b, p. 6).

In short, the main difference stems from the purposes which divergent and convergent thinking serve: divergent thinking brings unexpected, outrageous solutions while convergent thinking helps to find practical and concrete answers. Chris Bilton (2012b) underlines that divergent and convergent thinking always go together to verify the idea at each stage of its formation, refine it as an elegant and most appropriate solution and fine tune it to the specific requirements.

Teresa Amabile conducted numerous studies about creativity and innovation and developed the componential theory of creativity (Amabile, 1988). The theory introduces four components that "are necessary for any creative response: three components within the individual – domain relevant skills, creativity-relevant processes, and intrinsic task motivation – and one component outside the individual – the social environment in which the individual is working" (Amabile, 2013, p. 134). Figure 2 illustrates the concept (Amabile, 1996, p. 113).

According to the scheme, motivation, or *task motivation* in earlier works, *expertise* and *creativity thinking skills* are important at different stages of the creative process because these three components bare different functions. *Expertise* embraces "familiarity and factual knowledge of the domain in question", "technical skills" and "special domain-relevant talent".

Creative thinking skills, on the other hand, refer to "a cognitive style appropriate to the generation of new ideas, an implicit or explicit knowledge of heuristics for generating novel ideas, and a conducive work style" (Amabile, 1996, p. 114). The theory also "suggests that creativity is most likely to occur when people's skills overlap with their strongest intrinsic interests – their deepest passions – and that creativity will be higher, the higher the level of each of the three components" (Amabile, 1997, p. 42). Thus, expertise and creative thinking skills provide their owner with a set of instruments and skills to solve the problem while the third component, motivation, illuminates the process with the energy and drive to find the solution.

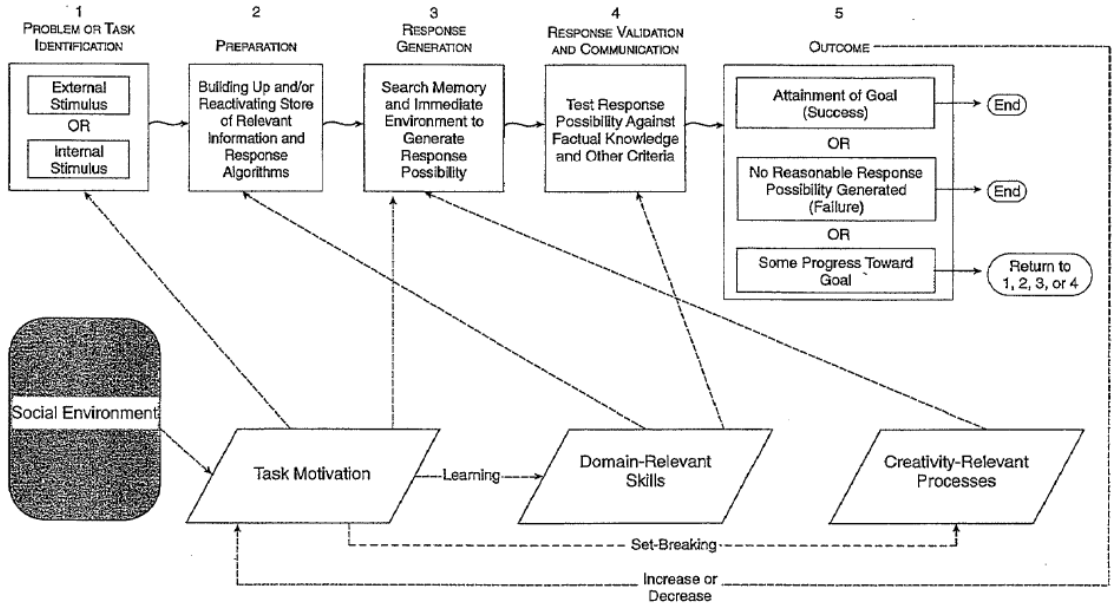

Figure. The componential theory of creativity. Broken lines indicate the influence of particular factors on others. Wavy lines indicate the steps in the process (where large variations in the sequence are possible). Only direct and primary influences are depicted.

(Source: From T. M. Amabile, *Creativity in Context* (1996, p.113). Boulder, CO: Westview Press (1996). Copyright 1996 by Westview Press. Reprinted by permission.)

Figure 2: The componential theory of creativity (Amabile, 1996, p. 113).

More specifically, task motivation embraces two important components: the "trait" (an individual's baseline attitude towards the task) and the "state" (the individual's perceptions of their reasons for undertaking the task in the given instance). The "trait" rests on the *relationship*

of the task with the individual's interests and goals, while the "state" is dependent on the external factors, mainly social environment (Amabile, 1996, p. 91). According to studies of daily diaries by Amabile, 76% of working people noted that "making progress in one's work - even incremental progress - is more frequently associated with positive emotions and high motivation than other work event" (Amabile & Kramer, 2010, p. 44). Other important events associated by employees with a great working day were collaboration (53%), instrumental (43%) and interpersonal (25%) support (Amabile, & Kramer, 2010, p. 45). In the next section, I will expand on the external and internal components of motivation and the regulatory types of behavior that stem from their various combination.

To summarize, the main characteristic of creative industry is hectic environment, where the sustainability of the enterprise depends on the creative class who are able to produce innovative content, which the audience finds valuable. The employees possess a certain skillset that allows them to explore and combine contrasting mindsets, concepts and ideas to deliver innovative products. These skills also include creativity and a certain type of motivation, which are required in order to be able to handle the heuristic nature of the innovation projects. The componential theory of creativity shows that motivation, or personal interest in the challenge, provides the energy and positive attitude towards the task that drives workers to the solution. However, this concept of motivation is not sufficient for the analysis of the innovation process and the workflow because the concept of motivation is too general, which would have limited the research instrument of this study. In the following chapter, I discuss the types of motivation as well as motivating mechanisms, which provide deeper understanding of the connection between personal stimuli and the workflow as well as define the key parameters of the research instrument to serve the purpose of this thesis.

1.2. Autonomy and Types of Motivation

The main purpose of this section is to develop the parameters in order to form the design of the research instrument and which will be operated during the research. For this purpose, I review different types of motivation on the personal level and connect personal stimuli with social environment. In particular, I look at the self-determination theory that introduces taxonomy of regulatory styles through diverse proportions of external and internal stimuli and links motivation with the concepts of control and autonomy. This connection is important because it helps to understand motivation and creativity in the work environment and provides the grounds for further discussion on the relation between motivation and social ambient on personal and group level in section 1.3.

As mentioned earlier, innovation happens in the context, on the edge of the box where requirements are met but the old boundaries are tweaked. In order to tweak the boundaries, talented individuals must have ideas, resources and the propensity to do something with them (Bilton, 2012b). “Expertise and creative thinking are an individual’s raw materials - his or her natural resources, if you will. But a third factor - motivation - determines what people will actually do” (Amabile, 1998). According to Grolnick, motivation is a reason for one’s behavior and the “attempt to explain why people or animals behave in a particular way” (Gorman, 2004, p.1).

Self-determination theory (Deci, & Ryan, 2012) has developed the most compound taxonomy of personal motivation, which operates two main categories: intrinsic and extrinsic motivation. I have chosen self-determination theory (SDT) because:

- the development of the theory is experimentally driven and was tasted in a variety of social domains and the classification was developed on the basis of empirically observable and measurable characteristics (Smith, 2002).

- SDT studies motivation from the psychological point of view and introduces taxonomy of motivation types (while other theories do not offer such differentiation). This taxonomy allows me to look at stimuli to engage in the activity from personal and social points of view that, consequently, provides the link between individual creativity and social environment.

- The taxonomy of regulatory styles establishes the grounds of the research instrument for this thesis because I treat the introduced concepts as parameters to measure the type of motivation on the personal and group levels. This allows me to see the relationship between team's motivation and the workflow.

- SDT taxonomy of motivation is based on three basic psychological needs, namely, autonomy, competence (related to power) and relatedness (belonging to a social group). The satisfaction of these three needs affect personal motivation and productivity, which is also important in the context of this study.

According to the theory, the difference between intrinsic and extrinsic motivation (as the opposite poles) rests on the polarity of autonomy and control. Autonomous motivation describes the experience of a full set of volition, willingness and choice about the activity that results in the situation when the participation in the activity endorses further involvement in it. On the contrary, controlled motivation induces the behavior by the principle of "carrot and stick" which imposes the sense of pressure on the person and the obligation to engage in the activity. It is also important to note that control also includes the influence of the social environment on one's actions.

However, it is important to note here that the extrinsic and intrinsic motivation in the pure form do not exist in real life settings. "SDT postulates that autonomous and controlled motivations differ in terms of both their underlying regulatory processes and their accompanying experiences, and it further suggests that behaviors can be characterized in terms

of the degree to which they are autonomous versus controlled" (Gagné & Deci, 2005, p. 334). Another way to look at it is to consider individual participation in the activity as the result of the combination of internal and external stimuli, thus the type of one's motivation depends on the relative strength of autonomous reasons (personal) and controlling factors. For example, the more people orient on self-growth and personal development while engaging in the activity, the stronger is the index of autonomy in their actions and the greater they are willing to contribute (Deci, 2012). In turn, if the reason to do something mainly stems from one's intention to avoid punishment or to follow certain rules, which are not personally accepted and are perceived as imposed, the proportion of external, or controlling, stimuli in their type of motivation dominates.

Speaking of the various combinations of personal stimuli, SDT introduces the taxonomy of regulatory styles, or *controlled-to-autonomous continuum* (within Organismic Integration sub-Theory) (Ryan & Daci, 2017, p.191). Figure 3 below gives the structure of the concept.

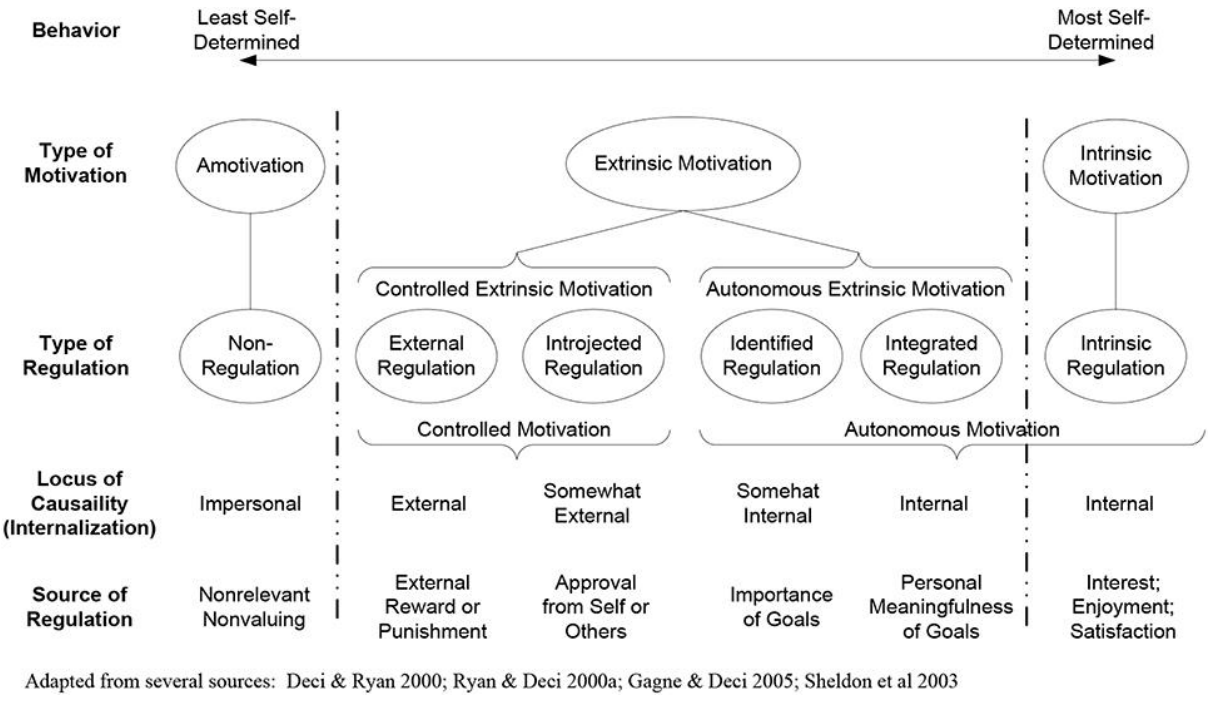

Figure 3: Taxonomy of regulatory styles (Clayton, 2015).

Considering the purpose of this thesis, the most important area of this figure is the types of regulation, which belong to the realms of extrinsic and intrinsic motivation, and their source of regulation. According to the graph, the most self-determined behavior is intrinsic, which belongs to the strongest level of autonomous motivation and is based on the enjoyment and satisfaction from the engagement in the activity. “Intrinsic motivation is considered the most self-determined form of behavior regulation because it involves spontaneous actions that are not based on internalized (or instrumental) processes” (Koestner & Losier, 2004, p.104). Instrumental processes imply the actions which correspond to the values and rules imposed by the social context. It was also suggested that “creativity is most likely to appear under intrinsic motivation” (Koestler in Amabile, 1996, p. 91).

However, most of the people who work have to earn money and most activities in work organizations are not intrinsically motivating (Gagné & Deci, 2005). In addition, there are many stimuli (which also apply to creative class) which are related not only to the joy of the engagement in the activity but to pursuing other goals which fall under the definition of extrinsic motivation, such as contribution to the society, self-development, being appreciated by society, making an impact, etc. Considering these reasons, SDT includes different types of extrinsic motivation that rest between two poles of control and autonomy, namely *external, introjected, identification* and *integration* types of regulation.

> “External regulation describes extrinsic motivation that remains dependent on external controls; introjected regulation describes extrinsic motivation that is based on internal controls involving affective and self-esteem contingencies; regulation through identification describes extrinsic motivation that has been accepted as personally valued and important; and integrated regulation describes extrinsic motivation that is fully self-endorsed and has been well assimilated with other identifications, values, and needs. Regulations that lie further along this continuum from external toward integrated are more fully internalized, and the resulting behaviors are more autonomous” (Ryan & Daci, 2017, p.191-192).

At this point, it is important to highlight that individual stimuli to perform activities and personal attitudes towards the project fluctuate at different stages of the project development due to personal and social reasons. It is true enough to say that if people are highly motivated to do something they will be more explorative to find the solution or participate and handle the obstacles. What is important to note here is the individual perception and superior reasons to perform the action. For example, a salary or a monetary reward is important and might be the primary reason for one to work. In turn, for another person the paycheck is important as well but the employee also believes that they make valuable contribution to the society and develop their skills while working on the project. This results in greater engagement in the activity and more enthusiastic contribution. Thus, the second person possesses a greater level of autonomous behavior, while the first one is engaged as much as they are supposed to so their type of regulatory style belongs to the category of controlled extrinsic motivation.

Another way to look at the combination of external and internal impetus is to consider the reciprocal conducive effect of intrinsic and extrinsic motivation. Amabile has introduced the concept of *motivational synergy* - "the positive combination of intrinsic and extrinsic motivation" (Amabile, 1993). Deci and Ryan argue that intrinsic motivation takes place only when it comes to the joy from the engagement in the activity, while Amabile (1993, p. 189) suggests that focus on the outcomes of the process (not the joy of the process itself) can be also considered as intrinsic motivation. She argues that these two types of motivation cannot be completely separated and extrinsic motivation, under some circumstances, complements intrinsic: Amabile experimentally proved that additive effects of intrinsic and extrinsic motivation takes place "when intrinsic motivation toward the work is already strong and salient. On the other hand, we might expect negative effects when intrinsic motivation is relatively weak" (Amabile, 1993, p.194). During her research, she distilled the circumstances that support both intrinsic and extrinsic motivation and defined two types of such positive

combination: *extrinsic in service of intrinsic* and *the motivation-work cycle match.* The next two paragraphs will unfold the concept and draw the differences between them.

Extrinsic in service of intrinsic describes the circumstances when certain types of extrinsic motivation facilitate intrinsic stimuli. Amabile agrees that if extrinsic types of motivation "lead individuals to feel controlled or constrained by external forces" (1993, p. 197), they have detrimental impact on intrinsic motivation (*non-synergistic extrinsic motivation*). However, she also emphasizes (and Deci & Ryan agree with it) that some forms of extrinsic motivation lead to stimulation of further engagement in the activity if those forms bear informative purposes, provide information on how to improve competence, help to find solutions and discuss the performance rather than embarrass it. These forms of external motivation include rewards, competition, moderate amount of negative feedback, constructive feedback and recognition (Amabile, 1993, p. 193; Ryan & Deci, 2017, p. 149-150). Additionally, according to Reeve, Nix and Hamm (2003), *action choice* (the opportunity to make choices during the engagement in the activity) in contrast to *option choice* (a choice from the range of options) and deadlines (if they are perceived as goals, aka desired future state, and guidelines) assist intrinsic motivation, too (Ryan & Deci, 2017, p. 150). On the contrary, if externally imposed goals are perceived as controlling, they decrease an individual's task interest, task persistence and satisfaction from the activity (Mossholder in Ryan & Deci, 2017, p.149). Concerning the individual skills, Amabile alleges that "high level of technical quality (appropriateness) in the output requires a high degree of *either* intrinsic or extrinsic motivation (or both)" (Amabile, 1993, p. 197).

In terms of *the motivation-work cycle match,* Amabile has concluded, "overall performance is likely to be optimized when motivation matches the stage of the work cycle - specifically, when intrinsic motivation is high during the problem presentation and idea generation stages of the creative process. Intrinsic motivation may be less important at other

stages" (Amabile, 1993, p.196) and, in these stages, extrinsic motivation reassures that the work will be completed on time and according to the requirements.

To summarize, both external and internal forces are important in the work environment. Higher levels of external motivation (identified and integrated regulatory styles) are connected with more autonomous behavior which results in stronger persistence at non interesting activities, fitness to the requirements as well as greater engagement in the activity and higher quality of contribution. However, it is important to bear in mind that higher levels of autonomous behavior do not exclude the stimuli which are representative for the types within controlled extrinsic motivation. In fact, impetuses which characterize different regulatory styles may all apply to the reasons for one's participation in the activity. The personal prioritization of them as well as individual perception of the external stimuli, which are imposed by the social environment, is what makes the difference and affects the outcomes. Therefore, the work contentment hinges on the consistency of work environment with personal motivational orientation towards the task. In the following section I will expand on the role of social environment and individual motivation on the workflow.

1.3. Innovation as a Result of Teamwork

The current section concentrates on the importance of social skills for the creative worker and expands on the innovation process on the group level. Specifically, I connect the creativity, motivation and taxonomy of regulatory styles to the context of teamwork in order to be able to interpret the collected data. The concepts of control and autonomy, discussed in the previous section, allow to understand the effect of autonomy supportive or controlling management behavior, which conduce or diminish motivation and, consequently, affect the workflow.

Considering the characteristics of microbusiness segment in creative industries, particularly, the need for flexibility and cost saving strategies of media enterprises, employees

are often hired through recommendations or personal networks on terms of short-term project based employment (Bilton, 2012d; Florida, 2014a). Due to short-term employment, the circulation of creative labor is quite high and team members' expertise always depends on the requirements of the project (Deuze, 2007, p. 66). Thus, networking and possession of so called *soft skills*, aka communication and people skills, are essential for a media worker (Deuze, 2007, p. 67; Bilton, 2012c).

It is important to mention that SDT argues that the development of the skill to socialize, or socialization, goes along with the development of one's motivation within *controlled-to-autonomous continuum*, the process called *internalization*. Socialization in this sense is a transference of the rules and values of the society to its members, in other words, the process of developing a social competence (Ryan & Daci, 2017, p.180). Consequently, the transference is effective when individuals perceive values and rules as a part of their personality and perform the required behavior on their own, without control, surveillance or the thwart of punishment[2]. The strongest level of transference results in "a highly stable and mature form of self-regulation that allows for the flexible guidance of one's action" (Ryan & Daci, 2017, p.189) and accompanies the experience of "two manifestations of healthy development, described as homonomy (integration with their groups) and autonomy (integration within themselves)" (Angyal in Ryan & Daci, 2017, p.190). This means, that highly self-determined professionals have stronger ability to collaborate and tend to contribute more.

Another way to look at *internalization* is to consider it as a process of natural growth and humanization. Natural growth of personality is a process of self-development by adapting the experience and practices which are customary in the social context, in other words social

[2] The acceptance of values is a result of the influence of the social (external) factors, which during the process of integration and internalization merge with one's identity so the person performs the activity volitionally, believing in what they are doing is right. That is the reason why autonomous behavior is associated with high level of motivation.

competence. The *competence* in this context is considered as the ability to reproduce or incorporate social roles which provides the feeling of efficacy that leads to the feeling of connectedness, in other words, *relatedness* to the social group which gives vitality and enthusiasm to internalization and leads to more *autonomous* behavior (Ryan & Daci, 2017, p.183).

Competence, relatedness and autonomy belong to three psychological needs (in the context of SDT) and their satisfaction anticipates people's interests and engagement in an activity (Katz, & Assor, 2006; Gillet et al., 2012; Ryan & Deci, 2017). Moreover, people who satisfy their psychological needs while achieving their goals, i.e. people who are self-concordant, are "in a state of dynamic equilibrium in which they readily move to new phases or levels of organization" (Vallacher, & Nowak, 1994 in Sheldon, 2004, p. 78). The reason for that is that when self-concordant individuals pursue their goals, they strengthen their self-concordance and acquire sufficient amount of "psychological nutrition" so they are poised and have enough psychological resources to take advantage of the opportunities, which is strongly related to the personal well-being and full-functioning (Sheldon & Elliot, 1999). *Full-functioning or thriving* is the ability to mobilize and harness psychological and physical energy to pursue valued activities, especially those that are connected with the personal feeling of ownership and satisfaction (Ryan & Deci, 2017, p. 258) that results in *creative adjustments* - the ability to "integrate inner and outer inputs into coherent actions" (Ryan & Deci, 2017, p. 241). Thus, the satisfaction of basic psychological needs results in self-awareness, confidence, higher energy level, well-being and choices that are more conscious.

Even though all of three basic psychological needs are inextricably intertwined and essential for human thriving and wellness, according to experimental studies (Niemiec et al., 2008; Gillet et al., 2012; Ryan, & Deci, 2017), autonomy plays the major role in personal full-functioning and facilitates the satisfaction of two other needs, namely relatedness and

competence (Ryan & Deci, 2017, p. 243). The reason for this lies in the feeling of being trusted in one's competence as well as freedom for self-management so the individual feels competent and adjusts their activity according to their needs and preferences. This explains why autonomy plays a major role in the differentiation between intrinsic and extrinsic motivation: the highest level of autonomous motivation refers to self-determined behavior and results in greater engagement in the activity (Gagné & Deci, 2005, p.334).

In the context of this thesis, it is especially important to consider autonomy of creatives in the context of microbusinesses. In creative economy small enterprises and self-employed professionals assemble in creative teams that are characterized by self-management and multitasking. Self-management is natural to the creative process because it stems from the decision making on resources, techniques, approaches, etc. In turn, multitasking is often a result of necessity to preserve flexibility and compensate the lack of financial and human resources. It includes but not limited to:

- expertise, which refers to high professionals (including technical) skills in the domain,
- general knowledge or familiarity with the skills of other professionals involved in the project or related to the domain,
- allocation of responsibilities and flexible role distribution.

Even though these characteristics come out of necessity, determined by the nature of microbusinesses, they turn into benefits for the innovation process and reduce alienation and a narrow vision, defined by Bilton (2012c) as threats for the quality of the final product. In particular, multitasking leads to "dual focus": "a tension between individual focus and collective process" or "a balance between expertise and generalist understanding" (p. 35). On the other hand, "the principle of skill variety, task identity, task significance, autonomy and feedback" (Yeh-Yun Lin & Liu, 2012, p. 70) stimulates work motivation. Thus, switching

roles, seeing the bigger picture as well as participation in the decision making process connect team members to the collective achievement and allow them to perceive themselves as a part of the team. All these increase their desire to contribute and collaborate.

One's contribution and engagement into the production process returns us to the taxonomy of regulatory styles, specifically, to the certain levels of motivation. Koestner and Losier (2004) consider *identified* regulatory style as the most efficient in the work environment. They defined two factors that facilitate the identification with the link of social environment: autonomy supportive and structure (as controlling factor). Autonomy supportive behavior "encourages independent problem solving, choice and participation in decisions" (Grolnick & Ryan, 1989, p. 144) and boosts intrinsic motivation through interest and the excitement of doing the activity (Gillet et al., 2012, p. 285). Structure, in turn, supplies "consistent guidelines, expectations and rules for behavior without respect to the style in which they are promoted" (Koestner & Losier, 2004, p.115) and encourages persistence in the performance of uninteresting tasks related to the activity (Sheldon & Houser-Marko, 2001). In particular, the structure bears the role of reminder for the reasons why the activity is important for the individual. In addition, the work in an organization or in a project is never autonomous and the workers as well as managers face constrains both internal and external. Even in terms of entrepreneurship, the amount of release may be high, but there is always a variable amount of control and entirely autonomous work has a degree of structure both concerning the process and result. The table below shows the combination of features, which characterize *identification* regulatory style.

Conceptual features	Regulatory styles		
	Introjection	Identification	Intrinsic
Involvement level	High	High	High

Emotional experience	Negative	Positive	Positive
Locus of causality	External (controlled)	Internal (autonomous)	Internal (autonomous)
Motivation force	Compulsion	Personal importance	Attraction (interest)
Regulatory guide	Conditional self-regard (learned)	Values & Identity (learned)	Emergent emotions (innate)
Goal orientations	Approach/avoidance (conflicted)	Approach (long-term/outcome)	Approach (short-term/process)
Needs implicated	Autonomy *vs* relatedness (conflicted)	Autonomy *and* relatedness (congruent)	Autonomy *and* competence (congruent)

Table 2: Conceptual characteristics of the three regulatory styles (Koestner & Losier, 2004, p.105).

As it can be seen from the table, the identification regulatory style encompasses features of internal (the motivation force is personally important and the behavior is autonomous) and external (value and identity are learnt) stimuli. “Identification keeps one oriented toward the long-term significance of one’s accomplishments in the domain” (Koestner & Losier, 2004, p.114) and results in higher persistence in non-interesting long-term tasks.

Furthermore, the tension between autonomy and structure implies management through release and control, in other words, the mangers need to provide autonomy supportive environment while keeping an eye on the quality of the final product. Autonomy supportive managerial behavior encourages independent problem solving, responsible attitude and participation in decision-making process. Authority figures who are supportive of the autonomous behavior create the social ambient where people feel more competent and related which, in turn, boosts engagement and fosters achievements (Grolnick & Ryan, 1987).

Even though autonomy support augments intrinsic motivation, aka the interest and excitement of doing the activity (Gillet et al., 2012, p. 285), the structure of the process encourages persistence in the performance of uninteresting tasks related to the activity (Koestner & Losier, 2004, p.115) and reminds of the reasons why the activity is important for

the individual. Furthermore, Chris Bilton (2012d) emphasized that the cooperation between managers and teams helps team members better understand the task and constraints which leads to better outcomes (Bilton, 2012d, p. 85). On the other hand, the constraints are important for the effective performance as long as they do not impose too much limitations on the process of developing the solution. Setting strategic targets instead of "buffering" creatives from the management realities creates a context and "provide[s] a framework of possibilities around which random impulses and suggestions can be organized" (Bilton, 2012d, p. 87). In other words, acknowledging the context means working through (not against) the requirements.

Due to high level of self-employment and individualism in creative industries, agencies are often constitutive as partnership which stems from a good rapport and mutual trust. The study on teams working on short-term projects by (Dackert, 2016) shows that the way team players communicate with each other affects the well-being of each team member individually. Additionally, the study also showed that feeling of content enhances the creativity of the team.

> "The best way to encourage creativity in teams seems to be to focus on the team members and their interaction, rather than the team composition. How the team members feel about the teamwork indicates how the creative process in the team proceeds. If diverse teams are created in order to include different perspectives and knowledge it seems to be of special importance to help the team to manage both cognitive and social processes to facilitate well-being and creativity" (Dackert, 2016, p. 26).

One of the threats of an affinity among team members is "group think", or "a steady accretion of consensus around shared values and habits of thoughts" (Bilton, 2012c, p.40), which results in narrowing down the focus and diminishes the innovativeness of the results.

However, microbusiness, flat hierarchy structure of small firms, self-management and multitasking blur the line between managers and creatives. In the context of creative economy, management implies a connection with the creative team through "a relatively collaborative approach to decision making – viewed from outside – it is often difficult to identify who is

leading whom" (Deuze, 2007, p. 65). Moreover, the practical skills of managers often outweighs the managerial experience and sometimes, in the context of microbusiness, managerial brokering responsibilities are shared among team members or sum up to a practical expertise and duties of one member.

To summarize, individual creativity skills as well as social skills of media workers are important for personal growth and career development. In the context of this thesis it is important to highlight the flat hierarchy of the team work and a balance between the rapport among team members and tension of different mindsets, opinions and perspectives. The ability to collaborate with the different professionals, self-management and multitasking have positive influence on the team work and provide general vision of the projects and perception of one's contribution as a part of collaboration Even though intrinsic motivation and integrated regulatory styles conduce the creativity and innovation the most, identified type of motivation is the most efficient one in the work environment because it encompasses the features of autonomous functioning and tendency to perceive the controlling environment as stimulating and encouraging. In addition, even though the duties of the manager might be summed up to other responsibilities, the autonomy supportive group climate, collaborative approach in decision making, seeing the bigger picture in the circumstances of moderate external constraints facilitate the creative process and positively affect the workflow.

Chapter 2. Methodology

2.1. Philosophy and research Strategy

The choice of the topic and the research methods are derived from social constructivist and pragmatist worldviews. Speaking of constructivism, one of the premises to conduct the research is to understand the role of motivation and management in the process of innovation. The results of the study provide more information about the influence of motivation and management behavior on the workflow in media related innovation projects which corresponds to the pragmatist worldview.

The purpose of this thesis is to investigate the relationship between team members' task motivation, managers' behavior and the workflow in the media related innovation projects. In other words, the purpose of this thesis is to grasp a comprehensive vision of the object (Creswell, 2014) which belongs to the explorative applications of the case study method. "[The case study method] investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident" (Yin, 2003). The method also provides a multifaceted view and deep analysis of the phenomenon (Hollifield, & Coffey, 2006, p. 582) so the case study method is an appropriate choice.

According to the theoretical framework, autonomy supportive behavior is the most nurturing for the innovation process (Ryan, & Deci, 2017). On these grounds, the specific research purpose of this thesis is to examine the connection between motivation, autonomy supportive or controlling management behavior and the workflow in the innovation media related projects. To answer this question I apply "across method" triangulation, as per the research on triangulation made by Casey and Murphy (2009), which means that this study is methodologically complex and includes both qualitative and quantitative methods (Hollifield, & Coffey, 2006, p. 582; Yin, 2003; Creswell et al., 2007, p. 245; Harland, 2014, p. 1116; Jensen, & Jankowski, 1991). The qualitative method gives "the opportunity to develop

extremely detailed, context-rich data or interpretations that offer insights into subtle underlying relationships" and requires purposeful selection of the case (Hollifield, & Coffey, 2006, p. 581). A mixed-methods approach "enables a more holistic and contextual portrayal of phenomena, which may enrich understanding. Completeness of data is concerned primarily with gathering multiple perspectives from a variety of sources so that as complete a picture as possible of phenomena can be built and the varied dimensions revealed" (Shin in Casey & Murphy, 2009). On these grounds, multiple cases within the Demola platform were selected to show different perspectives on the issue (Creswell et al., 2007, p. 246) which also increases the validity of the study (Yin, 2003, p. 46).

The accurate reflection of the context of the research, condition and values of the subject, requires triangulation as a validation which can take form of data collection from different sources (Hollifield, & Coffey, 2006, p. 582). Therefore, this thesis includes three phases of data collection which corresponds to the sequential triangulation: qualitative method (interviews), quantitative method (online questionnaire) and, the final stage, qualitative method (interviews). The infographics below represents the phases of the data collection.

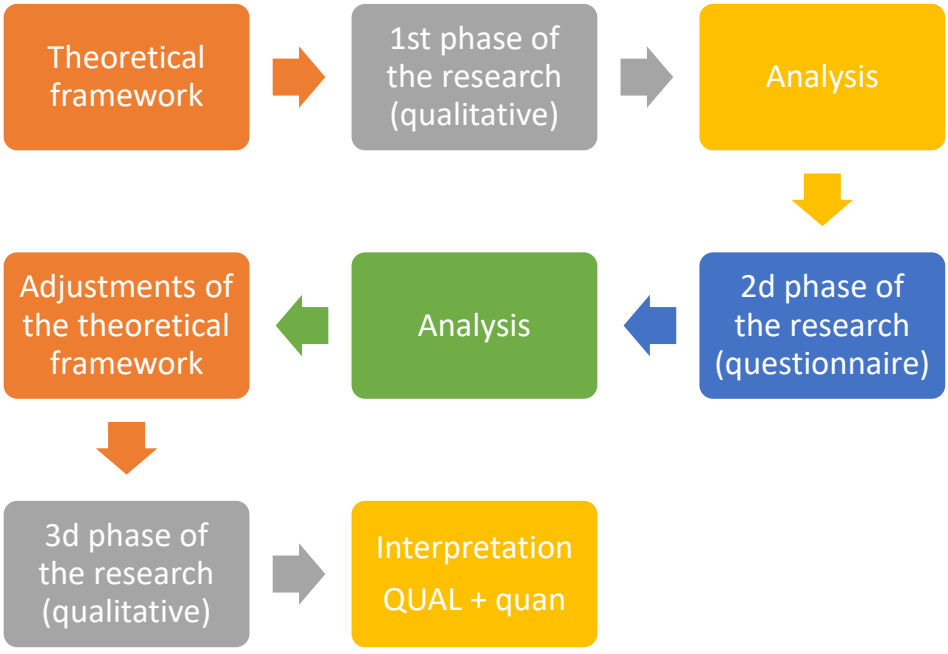

Figure 4: The phases of the data collection (Author's own).

In practice, the research strategy as well as the adjustments of the theoretical framework were made as this study progressed (Harland, 2014, p. 1118; Hollifield, & Coffey, 2006, p. 582). The following chapters will elaborate on each phase of the gathering the information, the procedures of data collection, respondents and analysis.

2.2. Qualitative Research (The First Phase of Data Collection)

The first phase refers to the qualitative method of data collection (interviews) which aims to gather general understanding about the phenomenon, i.e. the Demola platform, and its appropriateness for this thesis, select the cases, i.e. media related projects, and indicate variables. In particular, my aim is to understand the Demola vision of the influential components in a successful innovation team, investigate the tactics that Demola staff members apply to select applicants and the logic of forming the innovation teams. In the earlier research (Kilamo et al, 2011), students' motivation was identified as the main driving factor for team work in Demola projects (p. 309). During this phase, this information was validated and task motivation was defined as an essential component for the quality of the project outcomes. The relationship between variables (Creswell and Plano Clark, 2007), in particular, the role of Demola Tampere staff members, as well as criteria for the evaluation of the final results, was also identified at this stage. More elaborated analysis of the collected data will be performed in the analysis chapter.

The following sections describe the procedure of the data collection, discuss the sample of the respondents and explain the analysis procedure of the interviews correspondingly.

Procedure. This phase of the data collection took form of semi-structured interviews with the prevalence of the open-ended questions. The purpose of this design was to investigate the Demola Tampere framework and define respondents' individual approach to facilitating projects. The close-ended questions were also included in the interview and their purpose was

to clarify some responses. The instrument - the outline of the interview design is included in Appendix 1.

Two Demola facilitators were interviewed because both of them participated in the formation of the teams for the Demola Tampere Autumn campaign 2017. The interviews were conducted in September, at the very start of the Demola Autumn campaign 2017. The respondents were interviewed separately in the New Factory premises. Each interview was conducted in English and the duration of sessions was 30 and 60 minutes long. The interviews were recorded and transcribed according to the principles of *comprehensive protocol* (Mayring, 2014, p. 46). The interviewees signed the consent forms[3] (see Appendix 2) according to which the personal information of the interviewees remains private. The main questions of the interview design is included in the Appendix 1.

Respondents. During this phase, the interviews were conducted with two former Demola facilitators. Due to the transformations of Demola governance structure (currently Demola Tampere is operated by local universities and belongs neither to Hermia Group nor New Factory), the interviewed respondents stopped working in Demola Tampere in summer 2017 due to transformations of the platform. However, their experience is valuable on the understanding of the Demola framework and corresponds to the principle of *purposeful sampling* (Elo et al, 2014, p. 3).

Facilitator #1 participated in 4 Demola campaigns (1.5 years) as a member of the innovation teams and had worked as a Demola facilitator for 2 years until September 2017, the start of the autumn campaign 2017.

Facilitator #2 participated in 4 Demola projects (2 years) as a team member and had facilitated Demola projects for 2.5 years until September 2017.

[3] The design of the consent forms for this thesis is based on the consent form template of the University of Kentucky (Consent to Participate in a Research Study, n.d.).

Additionally, both of them have been involved (participated themselves, organized and facilitated) in local and international startup programs within New Factory platform as well as outside of it and continue to work there. Obviously, both respondents have extensive experience and knowledge about Demola platform and startup/entrepreneurship culture in Finland.

Content Analysis. The transcription of two interviews with the Demola facilitators (#1 and #2) were studied by using the qualitative analysis approach which results in the concept map located in Appendix 3.

The main reason to choose the qualitative content analysis grounds on the structure of this thesis, in particular, is to extend a conceptual framework (Zhang & Wildemuth, 2009, p. 309). The theoretical framework constructed in literature review provides the previous knowledge and set of categories which are tested in the new context (Elo & Kyngäs, 2008, p. 109). "Theory-guidedness means that in all procedural decisions systematic reference is made to the latest research on the particular subject and on comparable subject fields" (Mayring, 2014, p. 41). The structure of the categories provided by the theoretical framework refers to a *priori coding* technique (Stemler, 2001, p. 2) and corresponds to the deductive content analysis (Elo & Kyngäs, 2008, p. 108). Even though, it is possible that during data analysis, new themes are discovered from the data, they expand the meaning of the phenomena (Zhang, & Wildemuth, 2009, p. 309).

The advantage of content analysis is connection of data with its context (Elo & Kyngäs, 2008, p. 108); Mayring, 2014, p. 39) and possibility to adapt the method to the individual study (Mayring, 2014, p. 40). In addition, according to Mayring (2014), semi-structured interviews are appropriate for content analysis technique, even though "transcripts are never complete representations of their raw material" (p. 43). During the analysis stage QUAGOL, a guide for qualitative data analysis, was applied (Dierckx de Casterlé et al, 2012).

In the context of this thesis the classification of the results was repeated several times which refers to *stability*, one of three types of *reliability* of content analysis (Weber, 2004, p. 120). However, validity is regarded more highly than reliability (Mayring, 2014, p. 41) so *predictive validity* was witnessed during the research of this thesis (Weber, 2004, p. 121). In addition, to increase the validity, or trustworthiness of the results, the *Checklist for Researchers Attempting to Improve the Trustworthiness of a Content Analysis Study* (Elo et al, 2014, p. 3) was consulted.

2.3. Quantitative Research (The Second Phase of Data Collection)

The findings of the content analysis during the first phase lead to the decision to conduct a quantitative study. Due to complications related to legal issues and private policy of the Demola platform the procedure took form of an online questionnaire which was spread by the Demola facilitators among studied teams via email and team communication platforms. The questionnaire is included in Appendix 4 (for the team members) and Appendix 5 (for the project managers).

The questionnaire consists of three main parts and one biography part. Three main parts are devoted to

a. Initial motivation to participate in Demola.
b. Motivation during the project.
c. Management style.

The first part is about initial motivation and is aimed to find the initial reasons why people decided to participate in Demola projects. It corresponds to the first additional question stated in the introduction, aka *what was the initial motivation of team members to participate in the project?*

There are two questions which are designed in a way that allow respondents to list the reasons for their participation: the first question allows the participants to write their own

grounds to participate in Demola (free-from section) while the second question gives them options to choose from. Due to multiple reasons (which correspond to different types of motivation) for participation in Demola projects, students are allowed to choose several options. Most of the options represent different levels of extrinsic motivation. This sequence provides the opportunity to ask the questions without influence on the respondent's answer and later suggests them more options which fall under the different types of motivation.

It is important to notice that the design of the instrument to measure participants' reasons to join Demola consists of the set of statements which are disproportionately distributed among regulatory types. The statements were spread onto four categories: *intrinsic, identified, introjected and external*. The statements were assigned with the consultation of scale items for elementary schools (Ryan & Connell, 1989) and for sports environment (Pelletier et al., 2013, p. 339). The category *intrinsic* includes both intrinsic and integrated regulatory types because:

- *intrinsic* and *integrated* regulatory types are combined due to their close relation in terms of internal stimuli of the Demola participants;
- *integrated* regulatory style is considered as the most autonomous form of extrinsic motivation (Ryan & Deci, 2017, p. 188). Additionally, according to the quasi-simplex pattern, "those theorized to be closer together along the continuum were more highly correlated than those theorized to be more distant" (Ryan & Connell, 1989), therefore distinction between the autonomous and controlling components of motivation at this level in the context of this thesis is not easily assessed (which was discussed earlier in this thesis in the literature review, section 1.2. Type of motivation).

In order to balance out the instrument, the respondents' statements about their reasons to join the Demola project in the free-form section were included in the scale at the stage of analysis and the general score for all four projects was calculated on the basis of the total amount of replies for all four teams together. On the team level, the percentage for every type

of motivation was calculated on the basis of the total amount of replies for every team separately (the amount of the replies per team is equal to 100%).

The second part of the questionnaire is designed to identify the current motivational state of participants working on the project and corresponds to the second question mentioned in the Introduction, aka *what was the motivation of team members to participate in tasks related to the project?*

This part of the questionnaire is based on the existing *Academic Self-Regulation Questionnaire* (SRQ-A) (Ryan & Connell, 1999). Despite of the fact that the original questionnaire was created for students in late elementary and middle school, its structure as well as the questions themselves are more appropriate material for adaptation to the selected cases in comparison with the *Learning Self-Regulation Questionnaire*, which was originally designed for adults (Ryan & Connell, 1999). Even though the rephrased questions are designed around the working process in Demola project, their formulation is very close to the original *Academic Self-Regulation Questionnaire* which makes possible to use the original approach to score the scale: "Very True is scored 4; Sort of True is scored 3; Not Very True is scored 2; and Not at All True is scored 1. This way, a higher score will indicate a higher level of endorsement of that regulatory style. The SRQ-A uses four subscales: external regulation, introjected regulation, identified regulation, and intrinsic motivation" (Ryan & Connell, 1999).

In addition, due to multiplicity of the motivation forces, the calculation of the individuals' *relative autonomy versus control index* (RAI) with respect to a target domain of action was applied to calculate participants' individual motivation (see Appendix 12). "It algebraically combines the subscale scores of the regulatory styles with those reflecting autonomy weighted positively, those reflecting control weighted negatively, and those reflecting more of the quality being given larger weights" (Ryan & Deci, 2017, p. 195). The

examples of the application of this scale can be found in the research by Ryan and Connell (1989) and by Grolnick and Ryan (1987).

The third part corresponds to the third and fourth additional questions stated in the Introduction, in particular, *What management behavior style does the project manager have?* and *How do team members perceive the manager's behavior on the spectrum between autonomy supportive and controlling?* This part of the questionnaire is divided into two sections: one is aimed at team members and the second one is devoted to the project managers of Demola teams.

The section for team members is based on the *Work Climate Questionnaire (WCQ).* In the case of the current paper, "the questions pertain to the autonomy support of the respondents' manager" (Baard et al., 2000). The short form of *Work Climate Questionnaire* was used which consists of six questions. Despite the adaptation of the questions to the case study, the scoring system of the original questionnaire applies to the one used in this study and the score is calculated by averaging the individual item scores. "Higher average scores represent a higher level of perceived autonomy support" (Baard et al., 2000).

The section devoted to project managers in Demola teams is based on *The Problems at Work Questionnaire (PAW).*

> "[The questionnaire] assesses whether managers tend to be controlling versus autonomy supportive with their employees. The measures are composed of eight vignettes, each of which is followed by four items. The four items following each vignette represent four different behavioral options for dealing with the problem that is posed in the vignette: one is Highly Autonomy Supportive (HA), one is Moderately Autonomy Supportive (MA), one is Moderately Controlling (MC), and one is Highly Controlling (HC). Respondents rate the degree of appropriateness of each of the four options (on a seven-point scale) for each of the eight situations. Thus, there are a total of 32 ratings" (Deci et al., 1999).

Deci et al. believe that PAW questionnaire identify characteristics of the respondents and its validity and score structure were previously tested (Deci et al., 1989).

The demographic part of the questionnaire in this thesis is meant to shed more light on the type of motivation the respondents have. In particular, the questions about hobby and work experience related to Demola projects represent whether respondents have more interest in the topic, which might affect their involvement in the project, and the final outcome. In addition, some facilitators use this factor to evaluate the strength of the applicant's motivation. The information about approximate number of hours spent on the project tasks directly reflects the amount of time the participant devoted to the project. The questions about employment and academic status tend to identify potential obstacles which reduce respondents' ability to engage in the project.

The following sections describe the procedure of the data collection, provide arguments on the selection of the cases and the sample of the respondents.

2.4. The Cases – Media Related Projects

The focus of this thesis is Demola media related projects which ran during Autumn Campaign 2017 in Tampere. The length of the campaign was three months: from September until the 23rd of December. The information about the campaign was spread through the universities in Tampere (the websites of the universities, presentations during orientation week) and via social channels. There were two facilitators who supervised the Demola Tampere projects.

The selection of study cases followed replication logic (Yin, 2003) and was based on the relativity of the tasks presented by the companies to creative industries. Creative industries are defined by the describing features of the production cycles or the type of the activity during the project (Howkins, 2013; Neuwirth, 2011, p. 48; Masalin, 2015; Bilton, 2012b). The following table provides information about the studied media related Demola projects. Due to

the privacy policy the names of the project partners (companies), the names of the Demola projects, identities of the participants as well as the decisions on the licensing were omitted from the studies.

Project name	Initial task	The background skills needed	Solution	Status
Case A	Utilization of online social media profiles and data.	1 business student, 1 UX designer, 1 human technology interface student, 1 social science student, 1 marketing and communications student	Mockup of the website, a survey, interview results, all ideas, market research.	Completed
Case B	Design of an application for the public transportation system.	1 data analytics student, 1 business student, 1 material science student, 1 UX designer	Demo, Market research	Completed
Case C	Development of a feedback system for children under 8 years old.	2 UX designers, 1 animation designer, 1 business student, 1 media management student	Demo	Completed
Case D	Marketing campaign.	1 business student, 1 industrial manager focused on social marketing, 1 designer, 1 design related field, 1 bioengineer.	Marketing campaign.	Completed

Table 3: The description of the projects that made the case study (Author's own).

As it can be seen from the table, some of the cases do not have direct relation to the Media industries. However, according to the interviews with the facilitators, the tasks that were accomplished during the projects were related to the media field. It is important to mention, that the task for case B was changed at some point by the team together with the project partner which resulted in the marketing research for marketing campaign.

The following sections will elaborate on the procedure of the data collection and respondents.

Procedure. Demola staff members expressed supportive attitude towards the study and thus Demola facilitators spread the link to the survey among Demola students via email and communication channels. The data were collected anonymously before the end of the Demola autumn campaign 2017 when most of the teams had their final packages (the outcomes of the innovation process) ready. However, the final meetings with the project partners had not taken place yet so the responses of the respondents could not be affected.

Respondents. The Demola facilitators spread the link of the online questionnaire among the teams. The initial sample consisted of 7 Demola projects which means there were approximately 35 potential respondents. However, by the end of the Demola campaign only 16 responses had been received so the amount of the selected cases was reduced from 7 to 4. The main criteria for the selection of the appropriate cases was the amount of respondents per team. In particular, every case is represented by three respondents: one project manager and two team members (in total 12 responses). The results of the online questionnaire are organized in the diagrams and infographics with the extensive analysis of the relationship between variables in the analysis chapter.

2.5. Qualitative Method (The Third Phase of Data Collection)

The third phase of data collection took form of the qualitative method (interviews) and was meant to accompany the quantitative method. As in the first phase of data collection, the semi-structured interviews included both open and close-ended questions. The respondents were interviewed separately in the Y-Kampus premises after the end of Demola Autumn campaign 2017 in February 2018. Two Demola facilitators were interviewed because the chosen cases fell under their supervision (Elo et al, 2014, p. 3). The interviews were conducted in English and the duration of each session was approximately 30 minutes long. The interviews were recorded and transcribed according to the principles of *smooth verbatim transcript* (Mayring, 2014, p. 46). The interviewees signed the consent forms (see Appendix 2) according

to which their personal information remains private. The outline for the interview design is included in Appendix 6.

This phase of the data collection corresponds to the fourth additional question mentioned in the Introduction, in particular, *What are the results and how was the group dynamic?* The aim of this phase is to get information about the team combination of the selected Demola cases, the team dynamic and facilitators' personal evaluation of the final packages (outcomes) delivered by the selected Demola teams. Due to the fact that the interviews provide highly subjective information, the questions about the Demola framework, the role of the facilitator as well as the definition of a successful Demola project were included. This information helps to establish a baseline for the evaluation criteria of the outcomes as well as the personal vision of the facilitators' roles in Demola.

Respondents. During this stage two Demola facilitators were interviewed because the chosen cases fell under their supervision (Elo et al, 2014, p. 3). In this study they are referred as facilitator #3 and #4.

Facilitator #3 was hired right at the beginning of the autumn campaign, at the end of September 2017, and did not participate in team formation for the autumn campaign 2017. Facilitator #3 was responsible for three cases studied in this thesis.

Facilitator #4 participated in 3 Demola campaigns as a student and had been working as Demola facilitator for 1.5 year. This facilitator continued working with Demola platform until January 2018. Due to transformations of Demola platform, facilitator #4 was the main and the only responsible person for the process of selecting applicants and forming the teams. Under his supervision falls only one project examined by this thesis.

Analysis. The design of the analysis is similar to the analysis during the first phase. The transcription of two interviews with the Demola facilitators (#3 and #4) were studied by using the qualitative analysis approach which results in the concept map in Appendix 7.

2.6. Limitations

This study has two types of limitations which are related to the limited resources and the research strategy. The current section discusses these issues and the techniques applied to handle them.

The first type of limitation was caused by the flaw in the design of the research instrument: the data about the initial motivation and the motivation during the project were gathered at the same time. This stems from the denied access to the applications of the respondents due to the private policy of the Demola Tampere framework and the restrictions imposed by the legal concerns of the stakeholders. In order to handle this issue the design of third phase of the research included the questions about the fluctuations in the workflow and the participants' activity along the project. Another type of limitations derives from the research strategy case study: generalizability, subjectivity and bias, and reliability.

Generalizability. As it is highlighted about qualitative methods in general, and about case study design in particular, the generalization of the findings as well as the formation of the theory is not possible (Harland, 2014, p. 1116) or rather difficult (Hollifield & Coffey, 2006, p. 580; Yin, 2003, p. 37). This claim is based on the uniqueness of the observed phenomenon and incomparability (Harland, 2014, p. 1116). Considering the context and uniqueness of the platform, the study was initially treated as a specific case (Hollifield & Coffey, 2006, p. 580) which represents application of Demola innovation framework to media related projects and cannot be considered as general but do mean to explore to what extend the cases reflect the theoretical assumptions.

Qualitative methods are also characterized with the lack of external validity (Harland, 2014, p. 1116). To increase external validity, the theoretical framework for this study is built on the research on innovation and creativity in the field of psychology which is grounded on studies within different domains. This study also includes two phases (the 1st and the 3d one)

of the qualitative method of data collection in the form of semi-structured interviews with four respondents (Creswell et al., 2007, p. 246) who have extensive experience (Demola facilitators) and were interviewed separately (Bekhet & Zauszniewski, 2012, p. 43): three of them have experience in working with innovative projects within Demola as well as with startups and entrepreneurs within New Factory platform.

Subjectivity and bias. The researcher has total control over the interpretation of the findings and adjustments of the theoretical framework (Harland, 2014, p. 1116) as well as flexible nature of the case study itself (Yin, 2003). This results in "the lack of external and internal validity" (Hollifield & Coffey, 2006, p. 582). The analysis of carefully selected multiple cases and data collection from different respondents is meant to strengthen the validity to this study. The triangulation and mixed-methods design which includes qualitative and quantitative data collection add strength to objectivity (Casey & Murphy, 2009). Quantitative surveys were based on the survey designed by the authors of the theory (see the section Quantitative Method, Respondents and Analysis). In addition, different phases of the study as well as multiple sources provide diverse perspective on the phenomenon (Hollifield & Coffey, 2006, p. 582).

Among the challenges in application of mixed-methods methodological framework is resolving discrepancies between different types of data, lack of the opportunity to spot reasons of unpredictable results and controversial information. To handle this, additional theoretical analysis is applied (Jensen & Jankowski, 1991).

Reliability. "The objective is to be sure that if a later investigator followed exactly the same procedures as described by an earlier investigator and conducted the same case study all over again, the later investigator should arrive at the same findings and conclusions" (Yin, 2003, p. 36-37). In this thesis, the study strategy and its logic are documented in the Chapter

about methodology in order to increase the transparency of the research design as well as to minimize the errors and biases (Yin, 2003, p. 36).

Chapter 3. The Context

3.1. The Context: Smart City and Open Innovation

Media and creative industries co-exist in the environment of rapid development and change within other industries and urban ambient. Project society, smart city planning, the policy of open innovation and agile management are the current trends that characterize professional and social environment in Finland (Raunio et al., 2016). According to the study of the management literature and creativity, the attention of researchers was drawn mainly to the innovation processes among individual creators or to the teams that worked on projects which were not related to media. Moreover, the studies on motivation and creativity mostly do not introduce the relationship between management in media and other industries (except Bilton, 2012b). Therefore, the introduction of the policy that is fostered by the Finnish authorities which affects all domains of life in the region is vital for understanding the environment where the case study of this thesis, media related projects in Demola Tampere, takes place.

Finland is actively exploring and implementing the concepts of smart city planning on behalf of the Ministry of Economic Affairs and Employment. The main reason for such enthusiasm is to "boost Finland's economy and competitiveness" as well as "[to] implement the EU-level territorial development instrument ITI-Integrated Territorial Investment in Finland" through the creation of "new business models, know-how and jobs" and improvement of life (Laakso, 2017, p.3).

The definition of smart city is quite complex due to its relation to the variety of concepts (Lee et al., 2014; Ojo et al., 2015) but there are three core factors: "technology (infrastructures of hardware and software), people (creativity, diversity, education) and institutions (governance and policy)" (Lee et al., 2014, p. 82). The dynamic process of building an effective smart city results in heavy emphasis on technologies and ICT development for smart city

planning. The increase of the city's smartness also requires economic restructuring, which, in Finland, is implemented through the creation of open innovative platforms (but not limited to it). The platform approach treats a city as a testing ground (Laakso, 2017, p. 4). In particular, it means "(i) providing open access and encouraging broad-based stakeholder involvement; (ii) enhancing individual, group, and community creativity; (iii) facilitating open dialogue and sharing; and (iv) making policy integration possible" (Anttiroiko, 2016, p. 28). The following paragraphs will expand on this in the context of Tampere as a part of smart city policy.

Tampere region, together with the capital city region of Helsinki, form the most dynamic regional economic zone in Finland. Following Helsinki, Tampere is the second-most-important node of education, research and development in Finland and in many ways a "forerunner in policies of knowledge-based development" (Raunio et al., 2016, p. 16). Tampere also belongs to three Finnish cities (Helsinki, Tampere and Oulu) whose economic development policies include commitment to the smart city agenda which is expressed in the establishment of "various innovation platforms, and, more importantly, exemplify the participatory turn in the rationale of such platformization" (Anttiroiko, 2016).

In addition, Tampere is a part of Six City Strategy program which, inter alia, focused on "*building of competences of cities and local public actors* to foster (open) innovation" (Raunio et al., 2016, p. 13). Six City Strategy includes such cities as Helsinki, Espoo, Tampere, Vantaa, Oulu and Turku and belong to "Finland's structural fund program for sustainable growth and jobs 2014 - 2020" and financed by European Regional Development Fund, European Social Fund, the Finnish Government and the participating cities" (6Aika-strategiatoimisto, 2016). Thus, the city provides a fertile ground for development of OIP: a number of open innovation projects has been launched and coordinated by authorities and private organizations and Demola is considered as a successful example of open innovation platform (OIP) (Raunio et al., 2016). Taking into consideration the role of motivation and

autonomy in the innovation process, it is worth mentioning that the platform approach means that "platform owners do not produce all the key products, innovations or services on the platform but facilitate the process *whereby users of the platform provide the most value for other users of the platform*" (Raunio et al., 2016, p. 6).

Florida believes that "major universities are key – if not *the* key – hubs of the Creative Economy" (2014b, p. 311) if they are the centers of research and sources of new technologies, attract talented individuals and foster tolerant people climate "that attract and retain members of the creative class" (p. 311). According to the study authorized by the European Commission (Davey et al., 2013), Finland takes a leading position in Europe in terms of environment and approach to university-business cooperation (UBC). The country has high ranks in financial commitment and long-term perspective in UBC and strategies, namely documented strategies, implementation and motivation strategies in UBC, are above the European average. "In OIPs the role of students as innovators is stronger than in more traditional cluster projects; the link between learning and education and innovation is often very real and direct" (Raunio et al., 2016, p. 23). Tampere has almost 228k people ("Information on Tampere," 2017), every fifth inhabitant is a student and one third of the population is over 15 years old with a post-secondary education (Raunio et al., 2016, p. 17).

Therefore, this case study takes place in the context of policies aimed at smart city development, business-university cooperation and open-innovation approach. The following sections will shed more light on the development of the Demola innovation platform, its structure and framework.

3.2. History of Demola Tampere

Demola Tampere is a Finnish open innovation platform that manifests multidisciplinary and agile development of innovative products and product demos (Kilamo et. al, 2011). "Demola offers a governance framework that facilitates team building and supports emerging

business ideas. It also incorporates a model for managing immaterial rights that supports startups" (Kilamo et. al, 2011, p.2). Demola is famous for fostering creative thinking and innovation approach in problem solving among local businesses and students (Lugmayr et al., 2013). The vision of the platform is to build the world's strongest innovation ecosystem by bringing together companies, universities and students and combining "the talent of the students with company R&D activities and university research" ("About – Demola Network", n.d.).

In 2010 the Demola project was the winner of the Regional Innovation Award from the Assembly of European regions (Case study 3. Demola platform, 2011). Demola was also selected as "the best cross-border and cross-sector innovator in the Baltic Sea Region" and listed "as the best practice for innovation policy-makers globally" by the Organization for Economic Co-operation and Development (OECD) and the World Bank (Einarson et al., 2015, p. 756).

Demola was first created in Tampere in 2008 and conceptualized in cooperation with Nokia (Salminen, 2014, p. 52). From Tampere, the platform grow internationally into Global Demola Network. By now the Global Demola Network includes 20 Demola offices all over the globe. Even though some Demola offices organize common projects (for example, BELT Bootcamp is a result of cooperation among Demola offices from Latvia, Sweden and Finland), all Demola Centers operate independently from each other and are supported by the local universities or sponsors. It needs to be specified that Demola Tampere model has its unique practicalities and not all the processes and operational settings are the same as in the Global Demola network. In this particular thesis, I refer specifically to Demola Tampere, not Demola Global the network coordinator.

In Finland, until September 2017, Demola Tampere was operated by Hermia group (development agency owned by the City of Tampere, VTT and Tampere University of

Technology) (Raunio et al., 2016, p. 24) and coordinated together with higher education institutes in Tampere, mainly, Technical University, University of Tampere and University of Applied Science. “The KT approach [Knowledge Triangle describes the interaction between education, research and innovation] is evident in the case of Demola, as it directly links the innovation activities of firms and other organizations with student teams and enables them to benefit from their work in the form of licensing. On the other hand, firms directly benefit from the demo that the project delivers to them after the project” (Raunio et al., 2016, p. 26).

Until 2011 Demola Tampere was supported by the Creative Tampere Program[4]. Since 2012 the platform is sponsored by six-year Open Tampere program. ("Open Tampere – Minds Wide Open," n.d.). Until autumn 2017, the platform had been combined with two other open innovation concepts - Protomo and Suuntaamo - and formed “New Factory”, “Uusi Tehdas” (Salminen, 2014, p. 52) - “the startup accelerator in Tampere that connects businesses and people”(New Factory, 2017). Since autumn 2017 Demola Tampere is operated by the universities and left the premises of New Factory. The main reason for the last change is to integrate Demola Tampere as a strategic tool for universities. In 2014, 283 students participated in 66 Demola Tampere projects in cooperation with 45 companies who spent €280k in licenses (Raunio et al., 2016, p. 24). By May 2017, the number of accomplished projects in Demola Tampere turned over 500 ("Demola500 | New Factory open", 2017).

The following section will expand on the concepts and methods which form the Demola Tampere framework and go along with the concepts of the smart city.

[4] Creative Tampere Program lasted from 2006 until 2011 and its main goal was the expansion of the creative economy in the region (Tampere Region EU Office, n.d.).

3.3. Concepts Applied in Demola Tampere

The following are the fundamentals of free/libre open source (FLOSS) which form the core of the Demola Tampere framework (Kilamo et. al, 2011, p.3) and correspond to the principles of open innovation and smart city:

- Motivation. "The participant's internal motivation is the main driving factor for the Demola teamwork" because it reassures that the participants are ready and willing to spend their time and energy on the exploration and development of the project.
- Collaboration, co-creation and community spirit.
- Legal Concerns

> "The open innovation approach in Demola respects the IPR of the teams: the students own the rights to the project results. The originator of the project idea can buy wide and parallel usage rights to the results by paying the project team an agreed reward, i.e. the team licenses their work to the industrial partner" (Kilamo et. al, 2011, p.3).

Demola encompasses a variety of methods and frameworks that foster creative thinking in problem solving and product development: design thinking, NABC method (Needs, Approach, Benefits and Competition) and agile development style (Einarson et al., 2015, p. 757). The following paragraphs will elaborate on them separately.

NABC method drives the logic of working on the cases in Demola. NABC stands for Need, Approach, Benefits and Competition (or Alternatives) that are introduced by Stanford Research Institute International (SRI) (Niels, 2012). During the Value creation workshop, students apply this framework to their cases and design their pitches according to it (Einarson et al., 2015).

Agile development style, which characterizes the Demola Tampere framework, and design thinking approach imply evolution of the idea through iterative, collaborative phases (Einarson et al., 2015, p. 757). "Design thinking can be roughly described as a method for the creative development of products, services, or other relevant tangible or intangible matters

requiring a creative mind for the development of novel ideas" (Lugmayr et al., 2011, p. 1). The following infographic represents the framework.

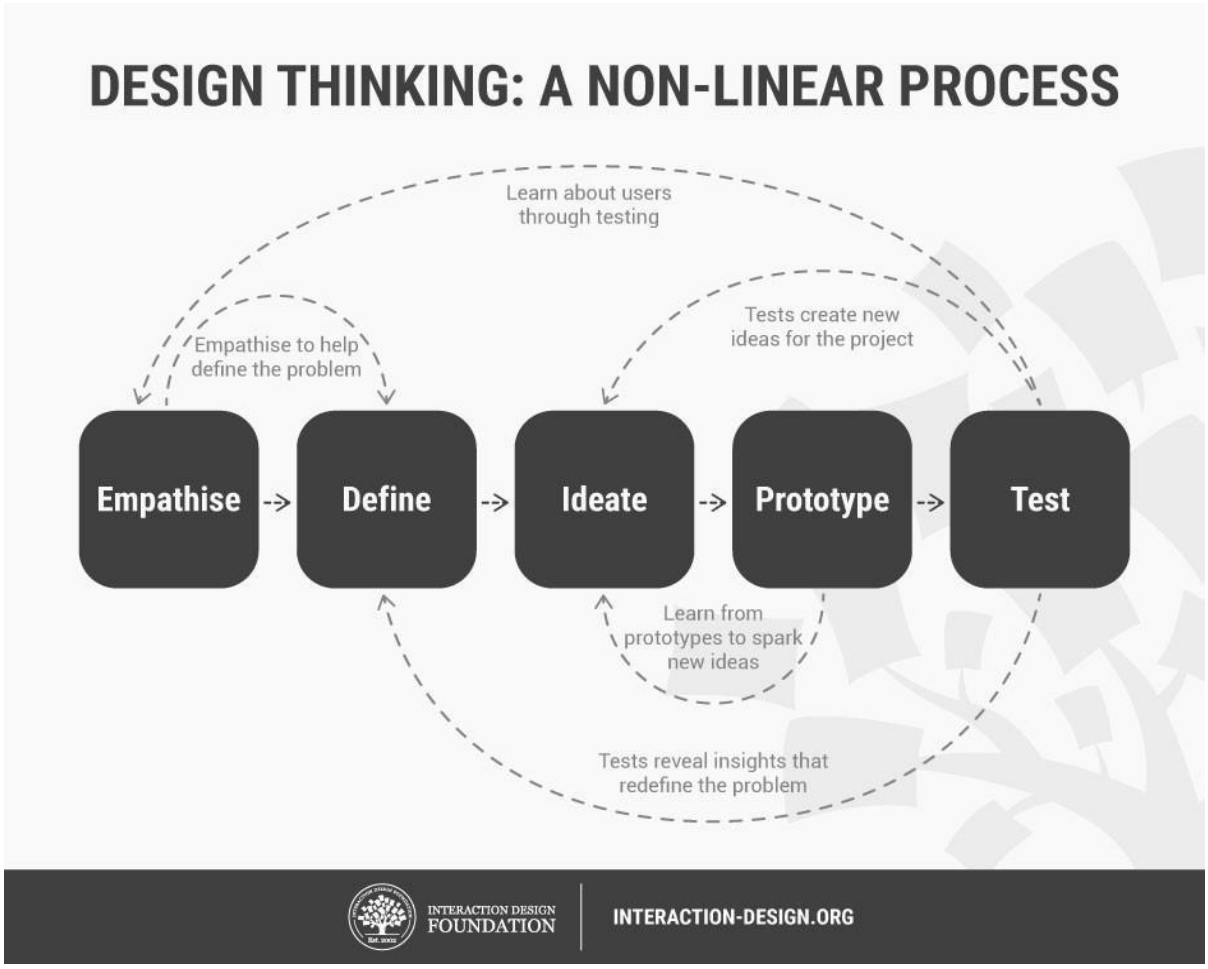

Figure 5: Design Thinking Framework (Dam & Siang, 2017)[5].

In particular, the design thinking method unifies rational and artistic mindsets and necessitates a thought-through process during its different stages. In addition, it introduces the idea of iteration during the process of innovation.

The following section will focus on the Demola Tampere framework in autumn 2017.

3.4. Demola Tampere Framework

The ideas for Demola Tampere cases come from the industries. Companies together with the facilitators, phrase the ideas into challenges, or cases. Demola Tampere staff select

[5] Author/Copyright holder: Teo Yu Siang and Interaction Design Foundation. Copyright license: CC BY-NC-SA 3.0

cases which form a campaign and publish them on the Demola Tampere web-page by the start of each campaign. The application procedure requires students to submit their CVs, provide links to their portfolios, write a short motivation letter and select maximum three cases they would like to participate in according to their priorities. In the free-form motivation letter students should explain the reasons for choosing the cases.

After the end of the application period, the facilitators start forming the innovation multicultural teams. Every team includes students with different cultural backgrounds (Raunio et al., 2016, p. 24) and from different professional fields: business, management and design departments as well as from the faculties directly related to the industry of the project. “Demola advocates for the fact that creativity comes from cross-disciplinary combined knowledge” (Einarson et al., 2015, p. 759). However, the most important criteria is the motivation letter and applicant’s involvement in activities and hobbies related to the project because Demola is built on openness and the motivation, or “personal itch”, “is a major driving force in the Demola way of doing” (Kilamo et al., 2011, p. 3) which reassures that the participants will invest a lot of energy and time on the project.

Demola Tampere has a framework which helps the teams to keep up with the schedule and pushes them through critical stages from idea generation to prototyping. The following table shows Demola Tampere milestones in autumn 2017:

Milestones	Description
Kick-off	• The start of the campaign • The introduction to Demola process • The first meeting of the team members
Initial meetings (the first week of the campaign)	Each team meets their project partner and gets familiar with their case. The signing of the license agreement.
End-user workshop	The presentation of the end-user concept. The teams apply the end-user model to their cases.

Demola Jam	Full day workshop design around deeper understanding of the cases, challenges and brainstorming on the solutions. Each team makes their first "sh*tty prototype". Short group meeting for project managers: questions, challenges and advice.
Value creation workshop	The teams apply the value creation model to their cases. NABC method is introduced.
Demola Jam II	The pitching workshop. Every team presents their solution to the rest of Demola participants, students give feedback.
Pitching event	Rehearsal of the final pitch with short feedback sessions.
Final pitch	The final presentation to other teams, Demola staff members, project partners.
Final meetings (the last week of the campaign)	Teams deliver the final package to their project partners. Afterwards the project partner has one month to make a licensing decision.

Table 4: Demola Tampere milestones during autumn campaign 2017 (Author's own).

Usually teams have weekly meetings where they work together on the project. "The team is at the heart of development while others direct, aid and facilitate the work" (Kilamo et. al, 2011, p.3).

In Demola Tampere, the role of the project partner is to provide resources (the information about the company which is necessary for the project, the materials or the financial refund), to be communicative (be reachable, provide clear feedback and participate in meetings) and open-minded (able to accept the ideas). Noteworthy it implies that the project partner is a team member because "the team works with the project partner, not for the company" (facilitator #2) which means that the students are not employees and they do not do the assignments for the company. Mostly, the project partners are less involved in the innovation process, however, they are the ones who decide on the value of the final results by making the decision whether to license project or not. Usually the team's facilitator presents during the meeting with the project partner.

The main role of the facilitator is to bear the responsibilities of a "guidance counselor" (facilitator #4) by connecting the stakeholders, monitoring the team's work performance, helping the team if necessary and making sure that every party – the team and the project partner – keeps up with responsibilities. According to the facilitators, they are not members of the teams so they should avoid bringing any input into the team's work. In this thesis the facilitators present different or outsider perspective on the team dynamic, workflow, team chemistry and the final results.

Every team is recommended to use the online platform Slack for communication. The facilitator and the project partner get access to some channels on the platform. However, every team is free to choose additional virtual platforms and application for communication.

To summarize, the Demola platform provides a nurturing environment for the development of the society in the context of smart city and introduces to the students the agile development style, NABC method and the design thinking: working in intercultural groups from different educational backgrounds improves teamwork, helps to socialize and find new ways to problem solving in the context of customer needs. A relaxed environment helps the ideation process and stimulates knowledge exchange (Lugmayr et al., 2011, p. 7).

In the context of this study, Demola Tampere is an appropriate choice to fulfill the purpose of this thesis for the following reasons:

- The cases in Demola Tampere are designed in the form of open challenges which fits into the characteristics of the heuristic task in innovation projects.
- The selection of students grounds on the right combination of their professional experience, activities and reasoning to participate in the selection process which forms the idea of the level of the applicants' motivation.

- The teams consist of participants from different cultures and professional fields that creates a diverse social environment which is considered to be the fertile ground for innovation.
- Every team has its own project manager and the roles are distributed without the help from the Demola facilitators.
- On the one hand, the innovation teams are very independent in their process while, on the other hand, the Demola framework provides the structure that both pushes the participants through the stages of the project development and keeps the participants' attention on the challenge and upcoming deadline.
- Even though every team is supervised by a facilitator, its operation is independent and the Demola Tampere staff members mainly act as observers and communication nodes.
- The project partner is seen as an active team member rather than someone to report to, so every other week every team meets with their project partners to work on the progress, seek their feedback and discuss further steps.

Consequently, there are several main factors which lead to the choice of the Demola Tampere platform to be a case study for this thesis. 1) The projects, or cases, within Demola Tampere are connected with the variety of industries and the studied cases belong to the creative industries. 2) The selection process of the participants has been based on applicants' personal choice of the project and their motivation to participate in Demola Tampere. 3) Demola Tampere projects are innovative and require participants to apply the trial-and-error approach in order to deliver valuable results. 4) Due to the innovative nature of projects in Demola Tampere, every case is assigned to a multidisciplinary international team. The teams are quite independent from their facilitators and team members initially do not have fixed roles so the workflow depends on self-organization and activity of the team members. 5) The lack of expertise of the participants is compensated by their motivation to join the projects which

has a direct impact on their involvement and contribution. 6) The projects involve different stakeholders: the students, the companies and Demola Tampere, thus, the participants work on the border between industry and education. 7) Even though, the project partners are considered as team members, often they are less involved in the innovation process. 9) The duties of the facilitators, concerning the innovation process itself, include guiding the teams through the milestones and observing the progress of the project which makes them perfect informants on the workflow and the team chemistry. 10) The duration of the Demola Tampere campaign was three months which makes it suitable to be a research subject for this thesis. 11) Finally, the Demola Tampere platform was awarded such nominations as “regional innovation award” (2011), “the best cross-border and cross-sector innovator” and “the best practice for innovation policy-makers globally”. The platform was also recognized as a successful example of University-Business Cooperation project. Thus, the case is well suited to investigate the research questions for this study.

Chapter 4. Findings: Description and Analysis of Data

The purpose of this thesis is *to investigate the relationship between team members' task motivation, managers' behavior and workflow in the media related innovation projects* by examining more precisely *the connection between motivation, autonomy supportive or controlling management behavior and the workflow in the innovation media related projects.*

This chapter is based on the data gathered during three phases of the research. The chapter consists of two sections:

1) the findings about the components of the Demola Tampere framework which have been mainly gathered during the first phase of the research and are associated with the purpose of this thesis. The categories which were developed at this stage are used during the third phase of the research.

2) The findings which derive from the examination of the relationship between motivation, management and the workflow in the innovation media related projects in Demola Tampere. The data were gathered mainly during the second and the third phases of the research.

4.1. The Structure of the Innovation Process within the Demola Tampere Framework

During the first phase of the research two semi-structured interviews with the Demola Tampere facilitators were conducted. The purpose of the interviews was to examine the Demola Tampere platform in terms of its appropriateness to the study, identify key variables and the relationship between them, gather the data of the selection procedure, and define the stakeholders and their roles. As a result of the study, the Concept Map of content analysis of the interviews was designed (see Appendix 3). The following figure illustrates the main components of the Demola Tampere framework.

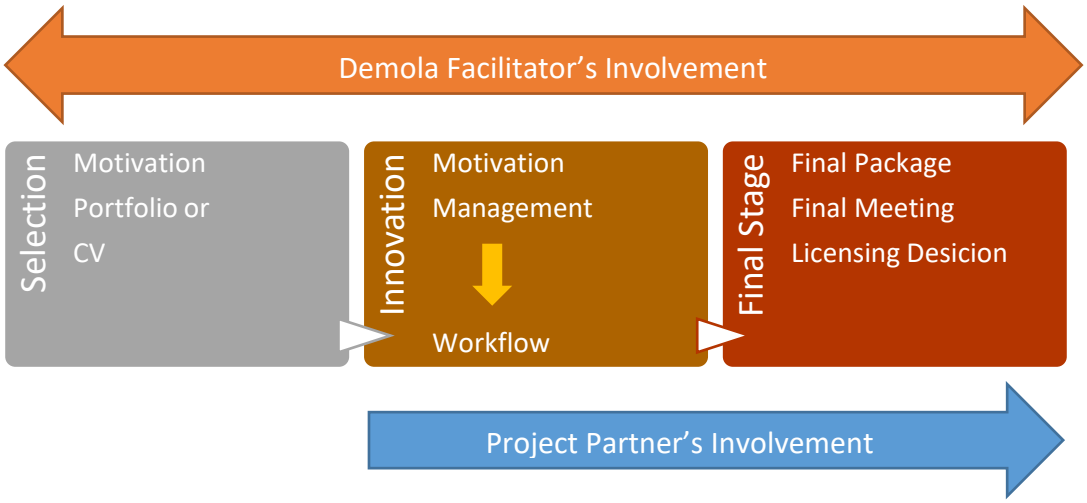

Figure 6: The structure of the Demola Tampere framework (Author's own).

According to the infographic, the Demola Tampere framework consists of three components: the selection, the innovation process and the final stage. In the context of this thesis, I pay attention to the connection between the selection and the innovation processes (the findings, which derive from the connection between the motivation, management and the workflow, are presented in the next section of this chapter). I decide to omit the analysis of the final stage because, according to the facilitators, the main value of Demola Tampere is not the final results but the experience which the participants gain during the innovation process. Due to this reason, the description of the successful Demola Tampere project is very broad and the criteria refer both to the quality of the results (prototype/demo, solution of the problem, research on the matter, workability of a concept, licensing) and to the individual benefits (experience and employment). Moreover, the time limit of this study as well as concerns about the privacy disclosure make it impossible to measure the quality of the final results.

On the contrary, both the selection and the innovation processes have the clear and well-defined structure. First, I draw my attention to the selection process because it serves the purpose of the bottle neck and, according to the Demola Tampere facilitators, defines the future of the project. The analysis of the innovation process will take place in the next section.

The logic of the selection process is based on participants' *applications* and the facilitators' *intuition*. The *application* includes freeform motivation letters (why the participants decided to apply for selected projects), their CVs and the links to their portfolios or to social media accounts like LinkedIn, Facebook, etc. According to the facilitators, the motivation of the applicants is the most important factor "because a very skilled student with no motivation will not end up doing much and might even affect the whole dynamic of the team. [...] When the student is really motivated, they will learn the skills necessary during the project as it has happened several times" (facilitator #4). The evaluation criteria for the applicants' motivation, which the facilitators find valuable (aka appropriate for the applicant to be selected) are classified according to the regulatory types of 'relative autonomy continuum' (Ryan & Deci, 2017, p. 180) and mostly correspond to the *identified* type of motivation.

The role of *intuition* derives from the uncertainty of the selection process, which all the respondents mentioned while describing the process. According to the facilitators, due to the amount of projects per campaign, students' applications and the limitations of motivation letters to represent the personality of their authors, the facilitators make their decisions about the applicants based on their experience and intuition: "a gamble", "it's a hunch", "gut feeling", find "a balance between skills and motivation" (facilitators #1, #2, #3, #4). In some cases, the facilitators can make a phone call to check the "vibe" in order to make the final decision.

Thus, the design of the selection process as well as the intention of the Demola Tampere staff is aimed to choose the applicants whose expertise (or professional skills) are balanced out with the autonomous types of motivation (preferably *identified*). Once again, this stage is crucial for the innovation process because the success of the selection process results in the quality of the workflow. In other words, the quality of the workflow indicates the quality of the innovation process: the description of the workflow (or as it defined in the concept map as *team*

dynamic) defines the fluctuation of team members' enthusiasm or involvement in the project. The evaluation of a good and bad *workflow* is closely connected with the description of the *team chemistry* and includes the following criteria:

- the *communication* among team members via the communication channels,
- the *frequency of the meetings* (the ability to fit team meetings into personal schedules),
- *the distribution of roles* among team members,
- *working on the tasks.*

It is also important to describe the role of the *project managers* within the Demola Tampere framework. According to the facilitators, "[a project manager] is rather just a team member with a bit more responsibility" (facilitator #4) and not necessary the leader of the team. Their main responsibility is to be a communicative node between the team members, the project partner and the team's facilitator and "keep things in order", "get stuff done" (facilitator #2).

To summarize, the main purpose of the Demola Tampere framework is to form teams with the autonomous types of motivation because these types of motivation balance out the lack of expertise and provide a rigorous workflow. The quality of the workflow is connected with the concept of the team chemistry and refers to the quality of the communication among team members, frequency of the meetings, the distribution of roles and involvement in the project. The listed criteria are used during the third phase of the research to examine the quality of the workflow in the innovation project (which corresponds to the fourth research question). It is also important to highlight that the duties of the project managers imply the establishment of the good communication among team members and the stakeholders, reporting on the progress of the project and making sure the final package meets the requirements.

4.2. Findings Related to the Research Questions

The current section is structured according to the research questions and findings associated with them. The findings in this section are mainly based on the data gathered during

the second and the third phases of the research. The analysis of the motivation and management is based on the research instrument developed within the theoretical framework of this thesis while the criteria to evaluate the workflow in the innovation projects have been developed during the first phase of the research (and are described in the previous sections).

1) The first question in this study sought to determine *the initial motivation of team members to participate in the project.* The most obvious finding to emerge from the analysis of the data is that the **autonomous types of motivation (intrinsic and identified) are dominant for the participants in Demola Tampere**. The data shows that 74% of participants' reasons to apply to Demola Tampere belong to both intrinsic (18%) and identified (56%) types of motivation (the ratio can be found in the table in Appendix 8). This corresponds to the Demola Tampere framework and, therefore, to the facilitators' intention to form the teams where members are driven by a certain type of motivation. The comparison of the results between four teams (see Appendix 9) reveals that three cases (A, B and C) show the small percentage of controlled types of motivation (*introjected* and *external* regulatory styles). It is important to notice that *external* motivation to participate in Demola in case D is distinguished by the highest score of the *external* impetus (46%) which outperforms other types of stimuli within the team as well as the sum of the *controlling* behavior types in three other teams A, B and C (19%, 28% and 12% respectively).

The second question in this study sought to determine *the participants' motivation during the project*, in other words, their motivation to participate in the activities and to work on the tasks related to their Demola Tampere project. The data show that (2) **the presence of other regulatory styles, or external and internal stimuli, increased in every case by the end of the project and the motivation became more complex** (see Appendix 10). In concordance with the findings about the initial motivation of the teams, autonomous types of motivation remained prepotent in the cases A, B and C. More precisely, (3) **the identified type**

of regulatory style dominates in three out of four teams (cases A, B and C), even though the level of the controlling behavior in all cases increased by the end of the project. These results are consistent with the Demola facilitators' intension. The fourth team (case D) differs from other three cases with its supremacy of the controlled types of stimuli over autonomous types. The study shows that the level of intrinsic motivation in case D significantly decreased by the end of the project and external type of motivation took the dominant position.

At this point it is important to highlight that (4) the results of this study show that **the proponent type of team motivation, or the combination of personal stimuli of each team member, at the beginning of the project in Demola Tampere remains dominant throughout the project.** This observation was disclosed by comparing the data about the applicant's' motivation to participate in Demola Tampere and their motivation to work on the task related to their Demola project.

Despite the fact that the next research question is devoted to the analysis of the management in the teams, I find it more consistent to proceed with the analysis of the relationship between motivation and the workflow in the teams because in this thesis the workflow is a connecting point between the motivation and the management: due to the limited access to the results of the studied cases at the final stage (which was discussed in the previous section) the data on the workflow is considered as a litmus test for the effect of the participants motivation as well as the management in the teams. Second, the respondents (both actual and former facilitators in Demola Tampere) strengthen the relationship between motivation and the workflow.

The comparison of the motivation complex among team members within every case with the facilitators' comments on the workflow in every team reveals that (5) **team members' personal motivation affects the team chemistry and the workflow, or team dynamic**. In particular, the radar graphs in the Appendix 11 represent the relatedness of motivation types

for team members in each case separately and introduce the connection between participants' motivation and the workflow. Three cases A, B and C show the consonance of *autonomous* types of regulatory styles for team members. According to the facilitators' comments on the workflow (see the Concept Map in Appendix 7), cases A and C received positive remarks about the team chemistry ("self-sufficient", "happy to work together" and "get on smoothly", active and initiative) and met on a weekly basis. In case B, the goal of the project changed and the motivation of the team decreased during the project. Despite that the team was remarked as self-sufficient, the team members reacted "pretty slow".

On the contrary, in case D two team members had a high level of external motivation. In addition, the motivation types of two team members and the manager have opposite polarity: *controlling* versus *autonomous* types respectively. In terms of the workflow, this case had quite negative remarks from the facilitator concerning the team chemistry and the team dynamic: the team had scheduling issues, the members reacted slowly and did not use all the resources they had.

The findings above allow me to conclude that (6), **if the team members' reasons to participate in the project are more autonomous and congruent with each other, it results in a good climate in the team and active engagement in the activities related to the project.**

At this point, I return to the research question about the management in the innovation teams: *how team members perceive the manager's behavior on the spectrum between autonomy supportive and controlling*, and compare the data on the management (or work climate) within teams (see Appendix 13) with the facilitators' comments on the workflow (Concept Map in Appendix 7). This comparison allows me to see **the consistency between team members' motivation and their perception of the management.** As it was mentioned earlier, cases A, B and C are characterized by the high ration of autonomous types of impetus.

From *the team members' point of view* (see Appendix 13), in the cases A, B and C team members perceive their project managers' behavior as highly autonomy supportive. Particularly, the calculation of the Relative Autonomy versus Control Indexes for each team member (see Appendix 12) reveals that the team members in case A gravitate to the autonomous pole (2.7 and 7.23) of the *autonomy relative continuum*, thus, case A represents the example of the highly autonomous motivated team members who also perceive their manager as highly autonomy supportive. Even though there was "no alpha person" in terms of leadership and the manager had the duties of the project manager (as defined by the Demola framework), the workflow of the team was described in positive terms (self-sufficient as a team, initiative, "happy to work together").

On the contrary, case D was distinguished by the dominance of the external motivational forces among team members. The RAI ration of the team members gravitates strongly to the controlling pole (-2.74 and -6) of the *autonomy relative continuum.* This is consistent with the perception of the management in the team as very controlling by one team member. However, the other team members do not perceive the management neither controlling nor autonomy supportive by giving the middle score (4 out of 7). In terms of *management behavior*, the manager in case D showed a high score of the controlling (2.14) behavior. Concerning the workflow, the team was characterized by the low level of cooperation, the passivity among the team members and the absence of leadership which led to the lack of decisiveness and scheduling problems.

Noteworthy, in case C, where the level of *identified* type of motivation was high among the team members and the workflow and the team chemistry were described in positive terms ("get on smoothly", met weekly, self-sufficient, active), RAI ration of the participants' motivation was neutral. The neutral ratio is the result of the balancing out controlling and autonomous types of motivation. In turn, this team is an example where the project manager,

in addition to performing the duties of the manager, was the leader of the group, and illustrates the connection between the presence of the leadership and the workflow.

To summarize, the participants' motivation of the innovation media related projects in Demola Tampere mostly belongs to the autonomous types of behavior with the dominance of the *identified* type of motivation. This is consistent with the intentions of the Demola Tampere staff and is supported by the design of the Demola Tampere framework. Even though the presence of other regulatory types increased in every case by the end of the project and the motivation became more complex, the proponent type of team motivation, or the combination of the personal stimuli of each team member, at the beginning of the project remained dominant throughout the project.

The analysis of team members' motivation on the personal level showed that individual motivation affects the team chemistry and the workflow. In particular, autonomous reasons to participate in the project accompanied with the congruency of the team members' motivational amalgams result in a good climate in the team and active engagement in the activities related to the project.

Furthermore, the comparison between the participants' motivation and their perception of the project management showed the consistency between the team members' motivation and their perception of the manager's behavior: the autonomously motivated team members perceived their managers as more autonomy supportive while the externally motivated team members rated their manager as highly or moderately controlling. In addition, the results above lead to one unanticipated finding: in the teams where the external type of motivation prevails over the internal stimuli, the presence of leadership is crucial for the workflow in contrast to the cases where the team members are highly intrinsically motivated.

Chapter 5. Discussion and Conclusion

5.1. Discussion of the Findings

The purpose of this thesis is *to investigate the relationship between team members' task motivation, managers' behavior and workflow in the media related innovation projects* by the examination of *the connection between motivation, autonomy supportive or controlling management behavior and the workflow in the innovation media related projects.* To find answers to the research questions, the case study of four media related projects within the Demola Tampere open innovation platform was conducted. A total of four in-depth semi-structured interviews with four respondents, who were the Demola Tampere facilitators with a different level of experience, as well as an online questionnaire, which involved twelve respondents, formed the basis of this study's empirical investigation. As such, the case study

1) investigated the relationship between stakeholders during the Demola Tampere project, the criteria for the selection of the applicants, the key factors which represented the workflow during the project and defined a successful project within the Demola Tampere platform,

2) identified the initial motivation of the participants and investigated their motivation during the project, identified the management behavior in the teams (including team members' perception),

3) studied the workflow, project management and team chemistry from the facilitators' perspective.

Some of the findings emerging from this research relate specifically to the role of management in the context of leadership, self-management, and decision making in the innovation projects. Even though the manager is not always a leader and his role is mostly referred to as a communication node between the team and other stakeholders, management is

less needed, when projects are going well, and matters greatly, when a project is at a problematic stage or a team is becoming dysfunctional.

Implying that management is necessary in all types of teams - even in small teams that are self-organizing and flexible, someone leads in each stage, this observational study particularly suggests that highly autonomously motivated teams do not require their manager to perform leadership skills due to the high level of self-management and active involvement among the team members who take the initiative in the different stages of the project. Conversely, in extrinsically motivated teams the leadership skills of the manager are crucial to sustain a rigorous workflow. Extrinsically motivated members aim to accomplish the task at the lowest cost because they have less interest in the activities which makes them more passive. Such a team needs a leader, or a guide, who takes responsibility to distribute the task, makes decisions and pushes the project forward. The absence of leadership results in not using all available resources, last minute planning, scheduling issues and a laggard workflow.

The observed connection between motivation of the team members and their perception of the management behavior might be explained in this way: the high level of extrinsic types of stimuli (whose influence can be described with the idiom “carrots and sticks”) results in the perception of the task as externally imposed and, consequently, the management behavior as controlling which decreases the members’ interest to participate in the project and leads to passivity (Mossholder in Ryan & Deci, 2017d, p. 149). The passive behavior, in turn, instigates the manager to perform motivating actions and controlling behavior in order to move the project forward which interlocks the parties with each other in a mutually reinforcing cycle.

It is important to mention that, as it was suggested in the literature, the perception of the management behavior varies among the team members and depends on their regulatory style, or the set of motivation forces. Autonomously motivated participants get on smoothly and are focused on working through the ideas they have in mind, taking actions and making

decisions along the way. This results in a good climate in the team and active engagement in the activities and can be explained by Sheldon and Elliot (1999), who found that the achievements of self-concordant goals result in a more sustained effort that increases the propensity of successful outcomes.

In these circumstances, the motivation is the main driving force which is supported by the positive team chemistry and results in a smooth workflow. This finding broadly supports other studies (Gagne & Deci, 2005; Niemiec et al., 2008; Gillet et al., 2012; Ryan & Deci, 2017) in this area linking autonomy and full-functioning. As autonomy is considered as the major basic psychological need that facilitates the satisfaction of other two needs, relatedness and competence, this study proves that the autonomously motivated team members are more actively engaged in the tasks related to the project and fortify each other's interest in the topic. Additionally, as the study shows (case D), the low presence of identified type of motivation together with the dominance of external stimuli diminishes the level of intrinsic interest in the project and results in the passive behavior of the members as well as a reluctant workflow. This observation is also in agreement with those obtained by Dacker (2016) who highlights that both cognitive and social processes in the team assist the well-being and creativity of the members while the lack of communication as well as a bad team chemistry might have caused the increase in the *extrinsic* and *introjected* motivation.

On the other hand, the observed connection between individual motivation and team chemistry might be also explained by the type of regulatory style and the way the participants perceive the task. The teams, where members were highly intrinsically motivated and perceived the task as heuristic, shared the interest to explore and search for the solution so the intentions were consonant and the nature of the workflow was supported among the members. On the contrary, in the other team (case D) where the participants were extrinsically motivated and the task was perceived as algorithmic, the level of intrinsic motivation decreased by the end of the

project and the team members were reluctant to take responsibilities and innovate or explore the opportunities, as was noted by the facilitator #4. This hypothesis derives from Amabile's (1999) study about the nature of heuristic and algorithmic tasks and the correlation between employees' perception of the task and the type of their motivation.

The results also show the increase in the complexity of regulatory styles in every case by the end of the project which can be explained by the design of the research instruments which were applied to measure the initial motivation and the motivation during the project. Another possible explanation is that the participants become more personally invested as the project proceeds: closer to the deadline the participants become more and more invested in its outcomes.

Additionally, the results of this study are consistent with the literature mentioned in this thesis which highlights the correlation between the "quality" of the motivation and the workflow (Deci, 2012; Amabile, 1996, 1997; Decy & Ryan, 2017) and, particularly, the idea of Koestner and Losier (2004, p. 114) who find the identified regulatory style as the most appropriate motivation type for the work environment because it is an equilibrium of external and internal forces (the "state" and the "trait" correspondingly) and which, in turn, is consistent with Amabile's concept of motivational synergy (1993). The consistency of the dominant motivational forces supports the importance of choosing people with the right combination of impetus for the innovation projects and is congruent with findings by Gillet, Berjot, Vallerand and Amoura (2012).

This study also shows that the level of intrinsic motivation (case D) significantly decreased by the end of the project and external type of motivation took the dominant position. This is consistent with that of Mossholder (in Ryan & Deci, 2017d, p. 149), who experimentally proved that external motivation dwindles the level of intrinsic interest in the task, and the

observation by Deci and Ryan (2017) and Amabile (1997) who noted that the intrinsic motivation is not sufficient in the long perspective.

5.2. Limitations and Further Research Recommendations

As such, this thesis provides a number of contributions to the media management of innovative projects in creative economy. First, this paper reduces the lack of knowledge about the motivation of participants in innovation media related projects in the context of smart city and open innovation platforms. Despite studies about open innovation platforms and the Demola Tampere framework per se, there is a lack of knowledge about the workflow as well as the management in such short-term innovation projects, especially in the context of UBC. This study sheds more light on the role of motivation in such projects, the dynamic or regulatory styles throughout the stages of the project and the correlation between participants' motivation and the workflow. Even though this study does not provide definite conclusions about the role of the project manager on the team members' motivation, it does support the hypothesis about the connection between the team members' motivation, the management and the workflow. In particular, this paper reveals the connection between the motivation and leadership in innovative media related projects and proposes further studies which focus on the role of the leadership in short-term media related projects and explore the connection between the leadership skills and motivation.

Second, this paper highlights the importance of the initial motivation of the participants and its influence on the workflow. In particular, this paper reduces the gap in the studies where the motivation of the members was directly related to the project and was less connected with the financial reward (as it takes place in the work environment) and makes the comparison between initial reasons to participate in the innovation project and the motivation on the later stages of the project development. The important role of intrinsic and identified regulatory styles for innovation, proposed in earlier studies by Koestner and Losier (2004) and Sheldon

& Houser-Marko (2001), found its ground in the current paper. In particular, the strength of the identified type of motivation together with the extrinsic motivation remains dominant throughout the project that positively influences on the team chemistry and workflow. On the contrary, a high level of intrinsic motivation is diminished by external regulated style without the strong presence of identified regulatory style. Even though the results are quite diverse, they do not undermine this hypothesis, rather they invite further detailed qualitative exploration.

It is important to highlight that the findings of this study were interpreted with caution due to the limitations which were caused by the time frame and the restrictions caused by the private policy of the Demola Tampere framework and the legal concerns of the stakeholders. With that in mind, further research which involves a bigger sample of the innovation projects and allows to cover a greater timeframe is recommended.

Third, this paper is also consistent with the self-determination theory (SDT) mainly represented by the works of Deci and Ryan and their collaboration with other researchers, in particular, the influence of the autonomous and controlling types of motivation on the team members' activity, their perception of the management and the workflow. However, the findings of this paper shed light on the challenging aspects of the theory, in particular, the complexity of the personal impetus and their dependence on the social context as well as personal psychological fluctuations and individual changes in preferences. It is also important to highlight that the fluctuations of motivational forces, the way team members perceive the management behavior and the workflow are affected by the factors outside of this study; therefore, the topic requires a larger sample of respondents and a closer access to the case study.

Fourth, this thesis supports the hypothesis of a complex relationship between internal and external stimuli which was formulated by Amabile in the concept of motivational synergy (1993) and suggests more studies about the relationship between leadership and motivation in

the media related projects in the context of innovation. Based on the empirical study, highly autonomously motivated teams do not require from the manager to have strong leadership skills which might be even crucial for the workflow. However, this study does provide the evidence that the presence of a leader in the innovation teams, where members are not strongly autonomously motivated, is necessary due to the lack of initiative and consensus. The type of the leadership, a fine-grained qualitative observation of the relationship between the leadership and participants' motivation as well as the influence of this relationship on the innovation process and the workflow are suggested for the further studies.

Finally, this paper supports the connection between the motivation, the workflow and team chemistry. In particular, autonomous types of motivation result in greater involvement in the project, better team chemistry and rigorous workflow. It is important to notice that this connection requires closer observations on the projects which were highly evaluated by the project partner. In the context of the Demola Tampere platform that was not possible due to the educative nature of the Demola Tampere platform which implies a broad definition of a successful innovative project and the limitations imposed by the private policy of the platform.

5.3. Implications for Media Managers

The findings of this thesis deliver the following implications for the managers of media related innovation projects in terms of support innovation and robust workflow. It is obvious that the initial motivation of team members, in particular, a dominance of the identified type of motivation supported by the high level of intrinsic motivation, is one of the essential components, especially in the context of cultural and professional diversity, because it increases the possibility of a good team chemistry that facilitates engagement and vigorous workflow, which, in turn, results in greater contribution and rise in the proximity to provide valuable products. The Demola facilitators highlighted the dominance of the motivation over the experience or study field because students whose reasons to join innovation projects are

self-concordant and tend to learn needed skills during the project, harvest more benefits from the participation and contribution to the project.

In cases where the team members have strong initial stimuli to participate, which derive from the self-concordant choice and more intrinsic types of motivation, the autonomy supportive management behavior is essential for a good social ambient and smooth workflow because it provides the team members with the opportunity for self-management and active contribution.

Another implication for the project managers in the short-term media related innovation projects addresses the connection between the management and the workflow. In particular, management is less needed when the workflow in projects is smooth while at the problematic phases or at the stages of stagnation management matters greatly. In other words, managers' ability to sense the social ambient and apply leadership skills rather than performing controlling behavior becomes vital when the team members become reluctant or the project becomes problematic. These leadership skills imply taking the responsibility of making decisions, forming the agenda and the distribution of tasks. These implications derive from the facilitators' comments on the workflow of the teams where participants were more extrinsically motivated and the absence of leadership in the team led to scheduling issues and communication problems.

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Appendix

Appendix 1: The outline for the semi-structured interviews with the facilitators #1 and #2.

1. Who formulates the project description on the website?
2. How do you choose project you are responsible for?
3. How do you choose applicants for the project?
4. How do you understand that the person is motivated by the motivation letter?
5. How closely are you involved in the innovation process?
6. What's the role of the facilitator?
7. What's the role of the project partner?
8. What's the role of the project manager?
9. How do you understand that the team lose motivation?
10. How do you motivate the team members?
11. What's a successful Demola project?

Appendix 2: The Consent agreement to participate in a research study.

THE ROLE OF MOTIVATION AND MANAGEMENT IN THE INNOVATION SHORT-TERM MEDIA RELATED PROJECTS

WHY ARE YOU BEING INVITED TO TAKE PART IN THIS RESEARCH?

You are being invited to take part in a research study about *motivation and management behavior in the innovation short-term media related projects*. You are being invited to take part in this research study because you were the facilitator of an innovation short-term media related project in Demola.

WHO IS DOING THE STUDY?

The person in charge of this study is Volha Furs, Master's student of University of Tampere, Department of Communication Media and Theater (the Program of Media Management). She is being guided in this research by Professor Gregory Ferrell Lowe (Supervisor).

WHAT IS THE PURPOSE OF THIS STUDY?

By doing this study, I hope to identify the relationship between team motivation, management behavior and the team dynamic in the innovation short-term media related projects.

ARE THERE REASONS WHY YOU SHOULD NOT TAKE PART IN THIS STUDY?

There is no objective reasons for you to be excluded from the current study because you were the facilitator of short-term media related projects in during Demola Tampere Autumn campaign 2017.

WHAT WILL YOU BE ASKED TO DO?

If you agree to be in this study, you will be asked to participate in the interview.

DO YOU HAVE TO TAKE PART IN THE STUDY?

If you decide to take part in the study, it should be because you really want to volunteer. You will not lose any benefits or rights you would normally have if you choose not to volunteer. You can stop at any time during the study.

WHO WILL SEE THE INFORMATION THAT YOU GIVE?

I will make every effort to keep confidential all research records that identify you.

Your information will be combined with information from other people taking part in the study. When I write about the study to share it with other researchers, I will write about the combined information we have gathered. You will not be personally identified in these written materials. I may publish the results of this study; however, I will keep your name and other identifying information private.

CAN YOUR TAKING PART IN THE STUDY END EARLY?

If you decide to take part in the study you still have the right to decide at any time that you no longer want to continue. You will not be treated differently if you decide to stop taking part in the study.

If you choose to withdraw from the study early, the data collected until that point will remain in the study database and may not be removed.

ARE YOU PARTICIPATING OR CAN YOU PARTICIPATE IN ANOTHER RESEARCH STUDY AT THE SAME TIME AS PARTICIPATING IN THIS ONE?

You **may** take part in this study if you are currently involved in another research study.

WHAT IF YOU HAVE QUESTIONS, SUGGESTIONS, CONCERNS, OR COMPLAINTS?

Before you decide whether to accept this invitation to take part in the study, please ask any questions that might come to mind now. Later, if you have questions, suggestions, concerns, or complaints about the study, you can contact the investigator

Volha Furs, furs.volha@gmail.com

CONTACTING RESEARCH SUBJECT

Do you give your permission to be contacted about the collected information or for additional information concerning current research?

Yes No _____ Initials

You are the subject or are authorized to act on behalf of the subject. You have read this form and the research study has been explained to you. You have been given the opportunity to ask questions and your questions have been answered. If you have additional questions, you have been told whom to contact. You agree to participate in the research study described above and you will receive a copy of this consent form upon your request.

(When developing the consent/authorization form, please format to ensure the signature lines fall on a page containing text.)

_____ _____

Signature of research subject. Date

_____

The name of research subject.

Appendix 3: Content Analysis. Concept Map (1st Phase of the Research).

Variable 1: Selection criteria

Category 1: Motivation /"*because a very skilled student with no motivation will not end up doing much and might even affect the whole dynamic of the team. [...] When the student is really motivated, they will learn the skills necessary during the project as it has happened several times*" (facilitator #4)/

Sub-category 1: Intrinsic

- Hobby
- Participation in the project

Sub-category 2: Identified

- Role in the project.
- Ideas about the project.
- Contribution.
- Desire to solve the problem.
- Desire to learn and get experience.
- Relativity to professional field.
- Work experience.

Sub-category 3: Introjected

- CV
- Portfolio

Category 2: Intuitive /*"A gamble", "it's a hunch", "good vibe", "gut feeling"*/

The reasons:

- Lack of time.
- Redundancy or flaws of the motivation letters.
- Rarely a phone call.
- A balance between skills and motivation.

Variable 2: Team Dynamic

Category 1: Team Chemistry

Sub-category 1: Communication

- Positive: active message exchange on the communication channel, bounce ideas, fast reactions.
- Negative: silence on the communication channel, reluctant conversations.

Sub-category 2: Frequency of the meetings:

- Team meetings (weekly).
- Meeting with the project partner (weekly or once in two weeks).
- Negative sign: scheduling issues.

Sub-category 3: Role distribution:

- Positive: presence of a good leader, "*organic*" co-working (facilitator #3).
- Negative: lack of the leadership, the absence of cooperation in micro-groups.

Sub-category 4: Approach to the task:

- Positive: questioning the root of the problem, persistence (in the face of issues, a lack of the feedback form the project partner, or a lack of the resources)
- Negative: "*the same material every meeting*" (facilitator #2), a lack of understanding the problem.

Sub-category 5: Motivating events:

- Internal milestones: meeting with the project partner, visiting the premises of the project partner, going out together.
- Demola milestones (the Demola framework).

Variable 3: The Role of the Project Manager /"*It's rather just a team member with a bit more responsibility*" (facilitator #4)/

- Communication node.
- Keeping things in order /"g*et stuff done*" (facilitator #2)/.
- Not necessary a leader.

Variable 4: Criteria of a Successful Final Product:

Sub-category 1: Quality of the results: prototype/demo, solution of the problem, research on the matter, workability of a concept, licensing.

Sub-category 2: Individual benefits: experience and employment.

Variable 5: Facilitator's Role

Sub-category 1: Connecting stakeholders

Sub-category 2: Guidance counselor:

- Monitor team performance
- Help the team when they face some issues

Variable 6: Project Partner's Role /- avoid too much influence on the team work/involvement because "*at the end of the day it is team's product and solution, and the team works **with** the project partner, not **for** the company*" (facilitator #2)/

Sub-category 1: Communication:

- Be approachable
- Give clear feedback
- Participate in meetings
- Be open for the unexpected ideas or solutions

Sub-category 2: Provide resources

- The information about the company which is necessary for the project,
- The materials, or the financial refund.

Appendix 4. Questionnaire for Demola Tampere (for the team members).

You are invited to take part in a research study about *motivation and management media related projects* at Demola.

As a student, if you decide to take part in this study, your answers will have no effect on your academic status or grade for the course. **Your responses are completely confidential and will only be used for research purposes. Your personal identity will not be known.**

Please be honest and candid in your responses. There are no right or wrong answers.

This study is conducted by Ms. Volha Furs, a master's degree student at the University of Tampere in the international degree program in Media Management. The survey collects data for her MA thesis. Professor Gregory Ferrell Lowe is the Supervisor. In case you have additional questions, please contact Volha at furs.volha@gmail.com or, for confirmation (only), Prof Lowe at Greg.Lowe@staff.uta.fi.

Answering the questions will take about 15 minutes.

Section One.

1. Is it your first Demola project? (Circle your answer)

   a) Yes b) No

2. What was your motivation to join specifically this Demola project (name at least three reasons)?

   ……..

3. Choose statements which are applicable to you (please circle all that apply):

   a. *The project is related to my hobby.*
   b. *I like to participate in Demola projects.*
   c. *The project is related to my professional field.*
   d. *People will think I am smart.*
   e. *I want to solve the problem.*
   f. *I want to get ECTS credits.*
   g. *I want to improve my skills.*
   h. *I thought it would be fun.*

i. Get practical experience in my professional field.

j. Get experience working in the international team.

k. I will have something in my portfolio/CV to show others.

l. Get money.

m. Other (write your answer)

Section Two.

A. Why do I work on my part of the tasks in Demola? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
1. Because I want the others to think I'm a good team member.	a	b	c	d
2. Because I'll get in trouble if I don't.	a	b	c	d
3. Because it's fun.	a	b	c	d
4. Because I will feel bad about myself if I don't do it.	a	b	c	d
5. Because I want to improve my skills.	a	b	c	d
6. Because that's what I'm supposed to do.	a	b	c	d
7. Because I enjoy doing my part of work.	a	b	c	d
8. Because it's important to me to do my job.	a	b	c	d

B. (a) Do you participate in team meetings? (Circle your answer)

Yes No (if *NO*, go to the ***question C***)

B. Why do participate in team meetings? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
9. So that the project manager or facilitator won't criticize me.	a	b	c	d
10. Because I want others to think I'm a good team member.	a	b	c	d
11. Because I want to learn new things.	a	b	c	d
12. Because I'll be ashamed of myself if I don't participate.	a	b	c	d

13. Because it's fun.	a	b	c	d
14. Because that's what I'm supposed to do.	a	b	c	d
15. Because I enjoy doing it.	a	b	c	d
16. Because it's important to me to participate.	a	b	c	d

C. Why do I try to work on challenging tasks? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
17. Because I want the other students to think I'm smart.	a	b	c	d
18. Because I feel ashamed of myself when I don't try.	a	b	c	d
19. Because I enjoy working on challenging tasks.	a	b	c	d
20. Because that's what I'm supposed to do in Demola.	a	b	c	d
21. To find out if my approach is right or wrong.	a	b	c	d
22. Because it's fun to challenge myself.	a	b	c	d
23. Because it's important to me to challenge myself.	a	b	c	d
24. Because I want other team members to say nice things about me.	a	b	c	d

D (a) Do you try to do your work well for the Demola project?

Yes No (if *NO*, go to the ***Section Three***)

D. Why do I try to do well my part of the work in Demola? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
25. Because that's what I'm supposed to do.	a	b	c	d
26. So others will think I'm a good team member.	a	b	c	d
27. Because I enjoy doing my part of the job well.	a	b	c	d

28. Because I will get in trouble if I don't do well.	a	b	c	d
29. Because I'll feel really bad about myself if I don't do well.	a	b	c	d
30. Because it's important to me to try to do well.	a	b	c	d
31. Because I will feel really proud of myself if I do well.	a	b	c	d
32. Because the project will get licensed and I get a reward if I do well.	a	b	c	d

Section THREE

This part of the questionnaire is only for team members and is focused on your experience with the project manager who is your most immediate supervisor. **Again, your responses are completely confidential, so please be honest and candid.**

For each statement, please use the following scale. There are seven answer options for each statement. Please circle the option that most closely reflects your experience for each.

1 2 3 4 5 6 7

strongly **dis**agree neutral strongly **agree**

1. I feel that my manager provides me choices and options.	1	2	3	4	5	6	7
2. I feel understood by my manager.	1	2	3	4	5	6	7
4. My manager conveyed confidence in my ability to do well at my part of work.	1	2	3	4	5	6	7
7. My manager encouraged me to ask questions.	1	2	3	4	5	6	7
10. My manager listens to how I would like to do things.	1	2	3	4	5	6	7
14. My manager tries to understand how I see things before suggesting a new way to do things.	1	2	3	4	5	6	7

Section about final results (continuation of Section ONE)

4. What was the final product you delivered to the project partner? (For example, demo, marketing campaign, etc.)

……..

5. How are you satisfied with the final results?

1 2 3 4 5

Not satisfied at all Very Satisfied

6. In your opinion, what were the main obstacles for YOU to do your best during the project? (name at least three)

……..

7. In your opinion, what were the main obstacles for the TEAM to deliver the best results? (name at least three)

……..

SECTION FIVE

1. How old are you? (circle your answer)
    a. Under 18 y.o
    b. 18 - 24 y.o.
    c. 25 - 35 y.o.
    d. 36 - 45 y.o.
    e. 46 - 55 y.o.
    f. older than 56 y.o.

2. What is your gender? (circle your answer)

    a. Male b) Female c) I don’t want to tell

3. Pick one which applies to you (circle your answer)

    a. I am an Erasmus student

    b. My home university is in Finland

    c. I am not a student

4. Are you a:

    a. Bachelor’s student

b. Master's student

c. PhD student

d. I'm not a student

5. Do you have work experience related to your role in Demola project?

a. No

b. Yes (university project, summer job, part-time job, full employment, etc.)

6. Do you have hobbies related to your role in Demola project?
   a. No
   b. Yes

7. What is your employment status at the moment?

   a. Unemployed

   b. Part-time job

   c. Full-time job

8. How many hours in total did you spend on the project? (approx.)

   …….. hours

9. Which is your Demola project?

   1. Kid-friendly feedback
   2. Nordic health sprays
   3. We see deaf people
   4. Jeep
   5. Design for death
   6. 360 education
   7. Elegance of massive data

If you agree to be contacted for the follow-up study, please, leave your email.

……..

Thank you for your participation!

Appendix 5: Questionnaire for Demola Tampere participants (for the project managers).

You are invited to take part in a research study about *motivation and management media related projects* at Demola.

As a student, if you decide to take part in this study, your answers will have no effect on your academic status or grade for the course. **Your responses are completely confidential and will only be used for research purposes. Your personal identity will not be known.**

Please be honest and candid in your responses. There are no right or wrong answers.

This study is conducted by Ms. Volha Furs, a master's degree student at the University of Tampere in the international degree program in Media Management. The survey collects data for her MA thesis. Professor Gregory Ferrell Lowe is the Supervisor. In case you have additional questions, please contact Volha at furs.volha@gmail.com or, for confirmation (only), Prof Lowe at Greg.Lowe@staff.uta.fi.

Answering the questions will take about 15 minutes.

Section One.

1. Is it your first Demola project? (Circle your answer)

   a) Yes b) No

2. What was your motivation to join specifically this Demola project (name at least three reasons)?
   ……..

3. Choose statements which are applicable to you (please circle all that apply):

   n. The project is related to my hobby.

   o. I like to participate in Demola projects.

   p. The project is related to my professional field.

   q. People will think I am smart.

   r. I want to solve the problem.

   s. I want to get ECTS credits.

   t. I want to improve my skills.

   u. I thought it would be fun.

   v. Get practical experience in my professional field.

w. Get experience working in the international team.

x. I will have something in my portfolio/CV to show others.

y. Get money.

z. Other (write your answer)

Section Two.

A. Why do I work on my part of the tasks in Demola? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
1. Because I want the others to think I'm a good team member.	a	b	c	d
2. Because I'll get in trouble if I don't.	a	b	c	d
3. Because it's fun.	a	b	c	d
4. Because I will feel bad about myself if I don't do it.	a	b	c	d
5. Because I want to improve my skills.	a	b	c	d
6. Because that's what I'm supposed to do.	a	b	c	d
7. Because I enjoy doing my part of work.	a	b	c	d
8. Because it's important to me to do my job.	a	b	c	d

B. (a) Do you participate in team meetings? (Circle your answer)

Yes No (if *NO*, go to the ***question C***)

B. Why do participate in team meetings? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
9. So that the project manager or facilitator won't criticize me.	a	b	c	d
10. Because I want others to think I'm a good team member.	a	b	c	d
11. Because I want to learn new things.	a	b	c	d
12. Because I'll be ashamed of myself if I don't participate.	a	b	c	d
13. Because it's fun.	a	b	c	d

14. Because that's what I'm supposed to do.	a	b	c	d
15. Because I enjoy doing it.	a	b	c	d
16. Because it's important to me to participate.	a	b	c	d

C. Why do I try to work on challenging tasks? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
17. Because I want the other students to think I'm smart.	a	b	c	d
18. Because I feel ashamed of myself when I don't try.	a	b	c	d
19. Because I enjoy working on challenging tasks.	a	b	c	d
20. Because that's what I'm supposed to do in Demola.	a	b	c	d
21. To find out if my approach is right or wrong.	a	b	c	d
22. Because it's fun to challenge myself.	a	b	c	d
23. Because it's important to me to challenge myself.	a	b	c	d
24. Because I want other team members to say nice things about me.	a	b	c	d

D (a) Do you try to do your work well for the Demola project?

Yes No (if *NO*, go to the ***Section Four***)

D. Why do I try to do well my part of the work in Demola? (Please answer each of the reasons below).	Not at all true	Not very true	Sort of true	Very true
25. Because that's what I'm supposed to do.	a	b	c	d
26. So others will think I'm a good team member.	a	b	c	d
27. Because I enjoy doing my part of the job well.	a	b	c	d

28. Because I will get in trouble if I don't do well.	a	b	c	d
29. Because I'll feel really bad about myself if I don't do well.	a	b	c	d
30. Because it's important to me to try to do well.	a	b	c	d
31. Because I will feel really proud of myself if I do well.	a	b	c	d
32. Because the project will get licensed and I get a reward if I do well.	a	b	c	d

Section FOUR *(for project managers)*

The following are a series of vignettes or situational stories. Each describes an incident and then ~~lists~~ suggests four ways of responding to the situation. Please read each vignette and ~~then~~ consider how you would likely respond.

Think about each response option in terms of how appropriate you consider it to be as means of dealing with the problem described in the vignette, and then rate it on the seven-point scale.

There are no right or wrong ratings. No judgment is intended or implied.

In each case, the stories ask what you consider appropriate for the supervisor to do. Some portray you as the supervisor and some ask what you think is appropriate for another supervisor. While some of these situations may not arise in your specific work, please imagine what it would be like for you in that situation and respond accordingly.

In rating each item, please use the following scale:

1	2	3	*4*	5	6	7
very inappropriate			moderately appropriate			very appropriate

A. *Jaakko, an employee for several years. However, for the past couple of weeks he has appeared concerned and lacking enthusiasm. The work he has done is good but he is less active than usual. The most appropriate thing for Jaakko's manager to do is:*
(Please rate each sentence below).

1. Tell Jaakko that it is really important to keep up with his work for his own good.	1	2	3	*4*	5	6	7
2. Talk to Jaakko and try to help him work out the cause of his lack of enthusiasm.	1	2	3	*4*	5	6	7

3. Warn him that if he continues to work at a slower rate, some negative action might be taken.	1	2	3	*4*	5	6	7
4. Let him see how his productivity compares with that of his team members and encourage him to catch up.	1	2	3	*4*	5	6	7

B. *Noora, one of your team members, has been working hard toward her degree, doing extremely well and is proud of her accomplishments. However, you are concerned, because she is very hard to work with whenever the pressure at the university is high. You decide the best thing to do is:*
(Please rate each sentence below).

5. Ask her to discuss how she plans to handle the situation.	1	2	3	*4*	5	6	7
6. Tell her that she ought to watch the balance between Demola and school and suggest she put more of her energies into Demola project.	1	2	3	*4*	5	6	7
7. Point out how other students have handled the same problem and see if that helps her handle the situation better.	1	2	3	*4*	5	6	7
8. Insist that she cut down on studying or take fewer courses; you can't allow it to interfere with Demola project.	1	2	3	*4*	5	6	7

C. *One of the Demola teams has been doing more poorly than the other teams. The appropriate way for the Demola facilitator to handle the situation would be to:*
(Please rate each sentence below).

9. Tell them that performance has to improve and remind them that there is a possibility of money reward.	1	2	3	*4*	5	6	7
10. Let them know how the other teams are performing so they will be motivated to do as well.	1	2	3	*4*	5	6	7
11. Have some discussions with the team as a whole and help them to make a plan for improving their performance.	1	2	3	*4*	5	6	7
12. Keep a record of each individual's productivity and emphasize that it is an important performance index.	1	2	3	*4*	5	6	7

D. *For some time, Tim seems to feel unhappy. However, you think that he can contribute more to the project. A useful approach might be to:*
(Please rate each sentence below).

13. Encourage Tim to talk about his performance and whether there are ways to improve.	1	2	3	*4*	5	6	7
14. Stress to Tim that he should do better, and that he won't get ahead if he continues at his current level.	1	2	3	*4*	5	6	7

15. Share your evaluation with him and compare his performance to the contribution of other team members.	1	2	3	*4*	5	6	7
16. Watch him more closely; praise him for increased output, and point out whenever he falls behind.	1	2	3	*4*	5	6	7

E. *Recent changes in the project have resulted in a heavier workload for all the team members. Barbara, the project manager, had hoped the situation would be temporary, but today she learned that her team would need to continue to work with the reduced amount of students for an indefinite period. Barbara should:*
(Please rate each sentence below)

17. Point out that her team members will stay in the project only if they can remain productive at the current rate; and then watch their output carefully.	1	2	3	*4*	5	6	7
18. Explain the situation and see if they have suggestions about how they could meet the current demands.	1	2	3	*4*	5	6	7
19. Tell her team members that they should keep trying because it is to their advantage to do so.	1	2	3	*4*	5	6	7
20. Encourage her team members to keep up with the workload by pointing out that people are doing it adequately in other Demola teams.	1	2	3	*4*	5	6	7

F. *There is one assignment which is regarded by all as the worst. It has been given to the student who has contributed to the project less than others. However, Juso, the guy currently assigned to this task has been doing it for some time, as no one new has been volunteered to do it. While he is generally very cooperative and satisfied in other respects, Juso seems to be increasingly irritated about this job, in part because it's an object of jokes and criticism from other team members. Juso's manager might:*
(Please rate each sentence below)

21. Let him know that the other people also have to put up with unpleasant aspects of their tasks, and give him a few examples of these.	1	2	3	*4*	5	6	7
22. Be clear with him that it is his responsibility and be sure he continues to do it.	1	2	3	*4*	5	6	7
23. Talk to him about the task, see if he can work through some of his feelings about it and the jokes that get directed at him.	1	2	3	*4*	5	6	7
24. Point out that the task is fairly assigned based on his contribution, and that such a system works for Juso's own good as well as others'.	1	2	3	*4*	5	6	7

G. *Janne is the main person responsible for building a prototype. Important parts are needed to be ordered from abroad, and he is often slow in meeting short notice demands and "emergency" situations. The best thing for the project manager to do is*:
(Please rate each sentence below).

25. Emphasize how important it is for him to keep up with the task and emphasize that he should meet ongoing demands.	1	2	3	*4*	5	6	7
26. Let him know how other Demola students with similar responsibilities are managing to keep up, so he can think about it. This might help him figure out how to better keep up.	1	2	3	*4*	5	6	7
27. Insist that the orders be done within a specified time limit, and check to be sure he is meeting the deadlines.	1	2	3	*4*	5	6	7
28. Find out from Janne what he thinks is wrong and see if you can help him figure out how to better organize his operation.	1	2	3	*4*	5	6	7

H. *There is a situation where the project partner has let the facilitator know that they are not very satisfied with the attitude of the contact person Peter in their Demola team. Imagine that you are a facilitator. The thing for you to do might be:*
(Please rate each sentence below)

29. Raise the matter with Peter to see what has been going on with him in dealing with the project partner.	1	2	3	*4*	5	6	7
30. Point out that project partner satisfaction is important and that Peter should put more effort in communication with the project partner.	1	2	3	*4*	5	6	7
31. Show Peter some ways that others have used to communicate with their project partners so he can compare his own style to others.	1	2	3	*4*	5	6	7
32. Tell Peter to make sure that the project partner is more satisfied and let Peter know that you will be checking up on him.	1	2	3	*4*	5	6	7

Section about final results (continuation of Section ONE)

5. What was the final product you delivered to the project partner? (For example, demo, marketing campaign, etc.)

……..

6. How are you satisfied with the final results?

1 2 3 4 5

Not satisfied at all — Very Satisfied

7. In your opinion, what were the main obstacles for YOU to do your best during the project? (name at least three)

……..

8. In your opinion, what were the main obstacles for the TEAM to deliver the best results? (name at least three)

……..

SECTION FIVE

1. How old are you? (circle your answer)
   a. Under 18 y.o
   b. 18 - 24 y.o.
   c. 25 - 35 y.o.
   d. 36 - 45 y.o.
   e. 46 - 55 y.o.
   f. older than 56 y.o.

2. What is your gender? (circle your answer)

   a) Male b) Female c) I don't want to tell

3. Pick one which applies to you (circle your answer)

   a. I am an Erasmus student

   b. My home university is in Finland

   c. I am not a student

4. Are you a:

   a. Bachelor's student

   b. Master's student

   c. PhD student

   d. I'm not a student

5. Do you have work experience related to your role in Demola project?

   a. No

   b. Yes (university project, summer job, part-time job, full employment, etc)

6. Do you have hobbies related to your role in Demola project?
    a. No
    b. Yes

7. What is your employment status at the moment?

    a. Unemployed

    b. Part-time job

    c. Full-time job

8. How many hours in total did you spend on the project? (approx.)

    …….. hours

9. Which is your Demola project?

    a. Kid-friendly feedback

    b. Nordic health sprays

    c. We see deaf people

    d. Jeep

    e. Design for death

    f. 360 education

    g. Elegance of massive data

If you agree to be contacted for the follow-up study, please, leave your email.

……..

Thank you for your participation!

Appendix 6: The outline of the semi-structured interviews for the facilitators #3 and #4.

1. How long have you been in Demola?
2. How many years have you worked as a facilitator?
3. What is the role of the facilitator?
4. Tell me the pros and cons of being a facilitator.
5. How do you understand that the team needs help from the facilitator?
6. How do you understand that the team gets along together?
7. Define a successful Demola project.
8. Did you participate in team formation last campaign?
9. Which teams did you form?
10. How do you choose applicants for the project?
11. How do you understand that the person is motivated?

Talking about the team cases.

12. Who formed the team?
13. How many members were in the team?
14. From which fields?
15. How much were you involved in the team?
16. How did the team perform during the project? Give me feedback on their work along the project.
17. How did they work as a team?
18. Give me feedback about the project manager. What was his role in the project?
19. Did the team have a separate leader? What was his role?
20. How much was the project partner involved?
21. How many times did the team meet?
22. How many times did they meet with the project partner?
23. Did you participate in every meeting?
24. What was the final result?
25. How did the team feel about the final results?
26. What was the reaction of the project partner?

Appendix 7: Content analysis. Concept map (3d phase of the research).

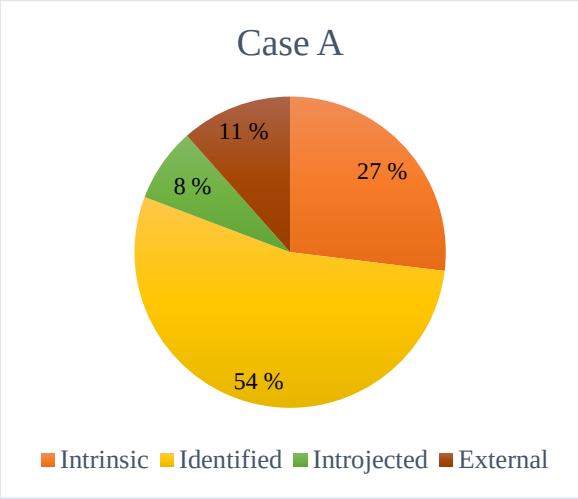
	Workflow/Team chemistry	*Project manager*	*Project Partner*	*Final Outcomes*	*Comments*
Case A*	- "Happy to work together" - Met weekly - Individuals - Self-sufficient as a team - initiative	- "No alpha person" (the team did not need a leader) - Contact person - Organized the meetings	"Very active" Met almost every week	Project partner: "really happy" The team: "very happy"	
Case B*	- "More or less" [the motivation decreased during the project] - Slow development of the project - Organized events - Self-sufficient	The team had another leader who - Took the initiative - Organized the meetings - Was "valuable" and complemented by everyone, including the project manager"	Met once in 2 weeks	Project partner: "was pleased" The team: "happy about"	The goal of the project has changed during the project
Case C*	- "Get on smoothly" - Met weekly - Divided the roles and chose them at the very beginning - Self-sufficient - Active	- Leader - Communication node - Active - Organized the meetings	Met less than every 2 weeks	"Everybody was happy about"	
Case D*	- Scheduling issues - Slow reaction, passive - Role division based on their skills - Did not use all the resources - low level of cooperation	- There was no leadership - The manager was afraid to make decisions and to exclude someone - Would postpone the meeting if someone cannot make it	- Met every 2 weeks - Active at the beginning but decreased by the end - Provided info about the company - Had small budget for the social media campaign	- Project partner "was not 100% satisfied" - Team "wasn't satisfied"	

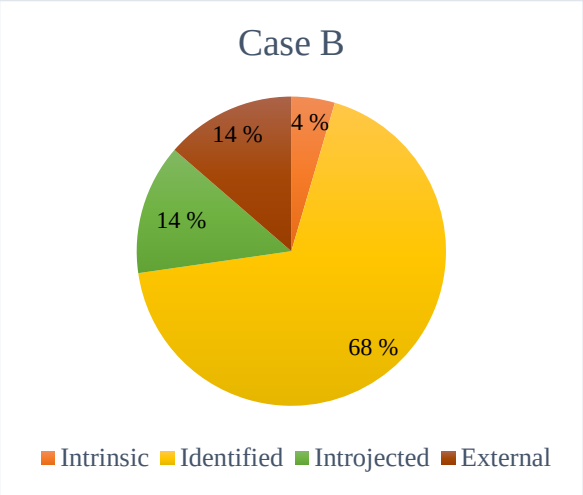
Appendix 8: The table represents the team members' reasons to participate in the selected Demola projects.

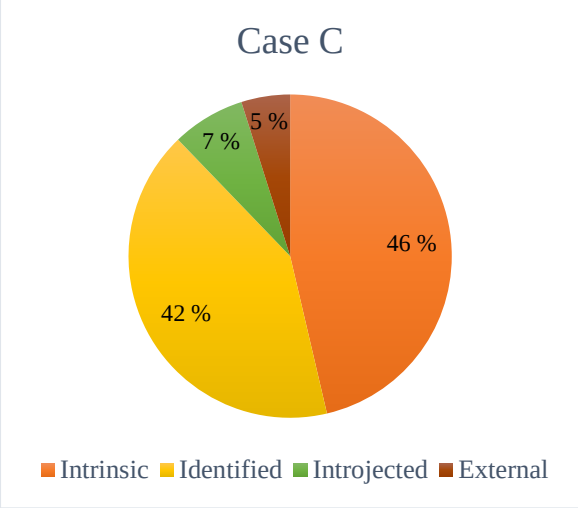
	Category	Statement	Total amount of replies	Case A			PM	Case B			PM	Case C			PM	Case D			PM
		TOTAL amount of responses	**88**	26	11	6	10	22	8	7	7	27	8	9	10	13	4	7	2
16	***Intrinsic***	*In Total*	***18%***	**7=27%**	***2***	***3***	***2***	**1=4%**	***1***			**5=19%**	***1***	***3***	***1***	**3=23%**	***1***	***2***	
	1	*The project is related to my hobby*	3									1		x		2	x	x	
	2	*I thought it would be fun.*	7	3	x	x	x	1	x			2	x	x		1		x	
	3	*I see the room for creativity*	2	1		x						1			x				
	4	*Interesting project*	4	3	x	x	x					1		x					
50	***Identified***	*In total*	***56%***	**14=54%**	***7***	***3***	***4***	**15=68%**	***4***	***6***	***5***	**17=63%**	***6***	***5***	***6***	**4=31%**		***2***	***2***
	1	*The project is related to my professional field*	7	2	x		x	2		x	x	3	x	x	x				
	2	*I can contribute*	2	1	x			1		x									
	3	*I want to solve the problem.*	5	3	x	x	x					2	x		x				
	4	*I want to improve my skills.*	8	2	x	x		3	x	x	x	3	x	x	x				
	5	*I want to learn something new*	7	3	x	x	x	1	x			3	x	x	x	0			
	6	*Get practical experience in my professional field.*	8	1	x			3	x	x	x	2	x	x		2		x	x
	7	*Get experience working in the international team*	8	2	x		x	2	x		x	2	x	x		2		x	x
	8	*Networking*	2					2		x	x								

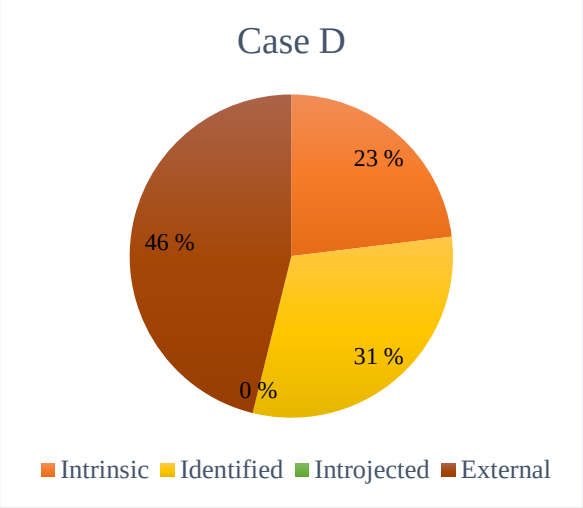
	9	*Make the world a better place*	2					1		x		1			x				
	10	*Sounded challenging*	1									1			x				
8	***Introjected***	*In total*	***9%***	**2=8%**	***1***		*1*	**3=14%**	***1***	***1***	*1*	**3=11%**	*1*	*1*	*1*	**0%**			
	1	*People will think I am smart.*	0																
	2	*I will have something in my portfolio/CV to show others.*	8	2	x		x	3	x	x	x	3	x	x	x				
14	*External*	*In total*	***16%***	**3=11%**	*1*		*2*	**3=14%**	*2*		*1*	**2=7%**			***2***	**6=46%**	*3*	*3*	
	1	*I need to get ECTS credits.*	7	2	x		x	2	x		x	1			x	2	x	x	
	2	*Get money.*	5	1			x	1	x			1			x	2	x	x	
	3	*Mandatory course*	2													2	x	x	
	Category	statement	Total amount of replies	Case A			PM	Case B			PM	Case C			PM	Case D			PM

Appendix 9: The team members' motivation to participate in the selected Demola Tampere project on the group level.

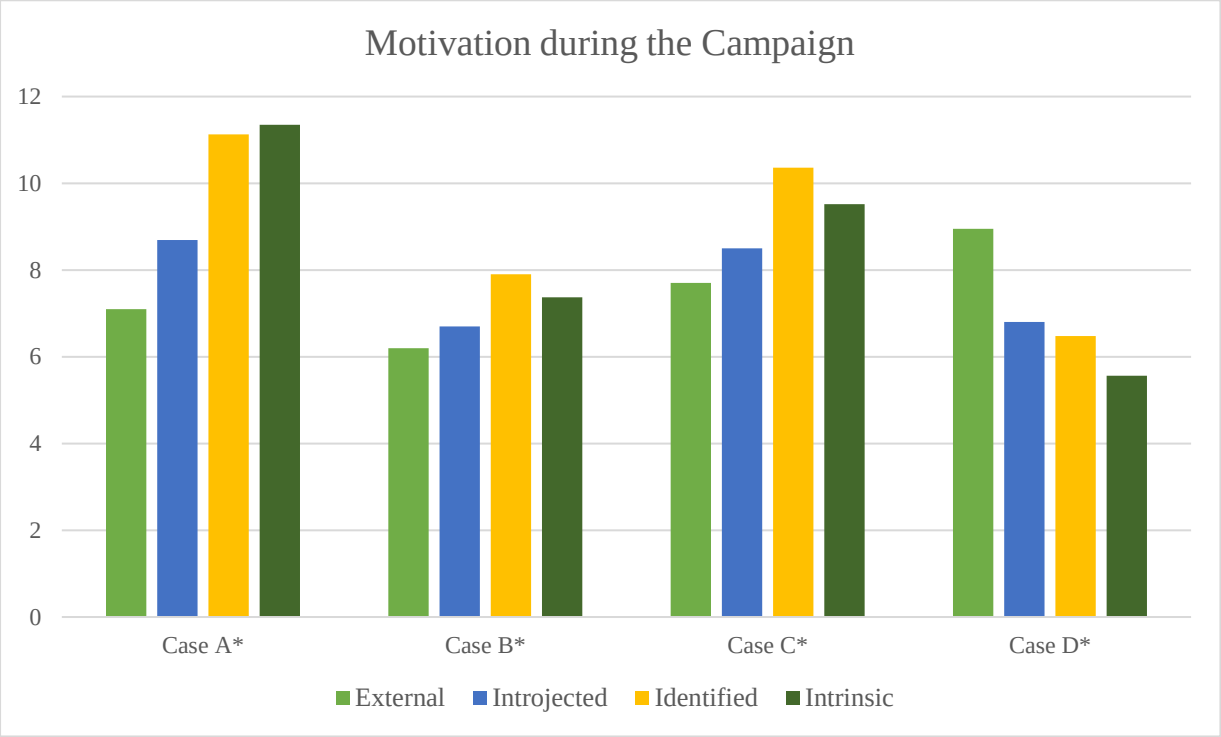




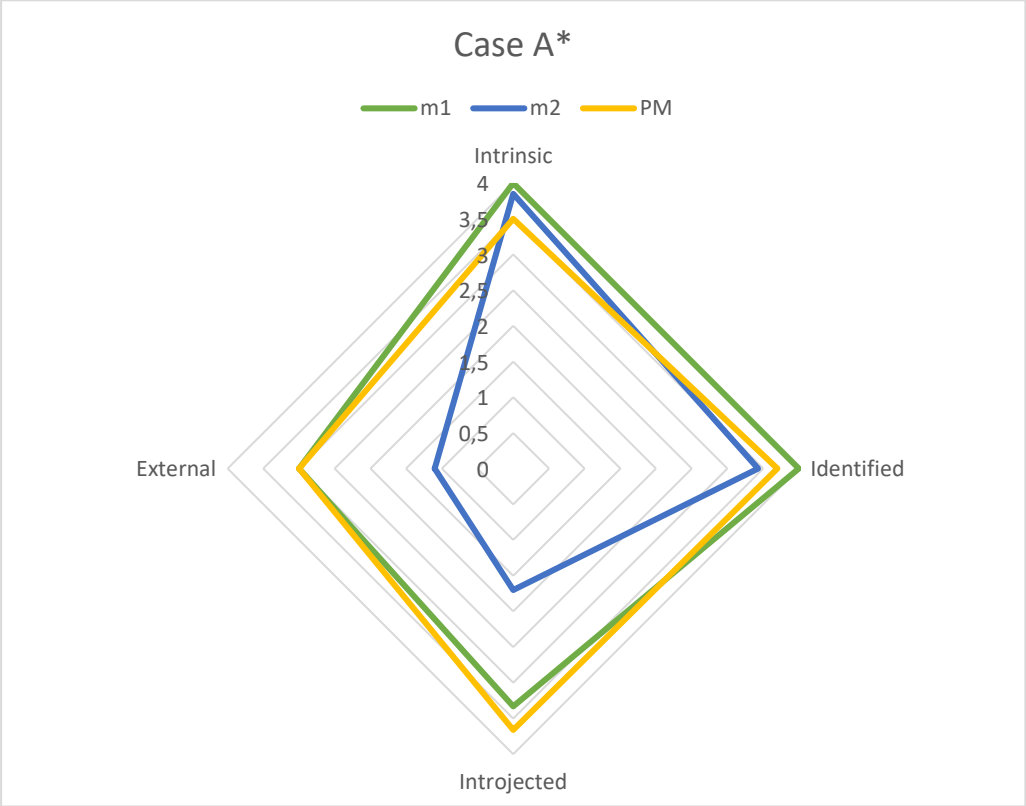


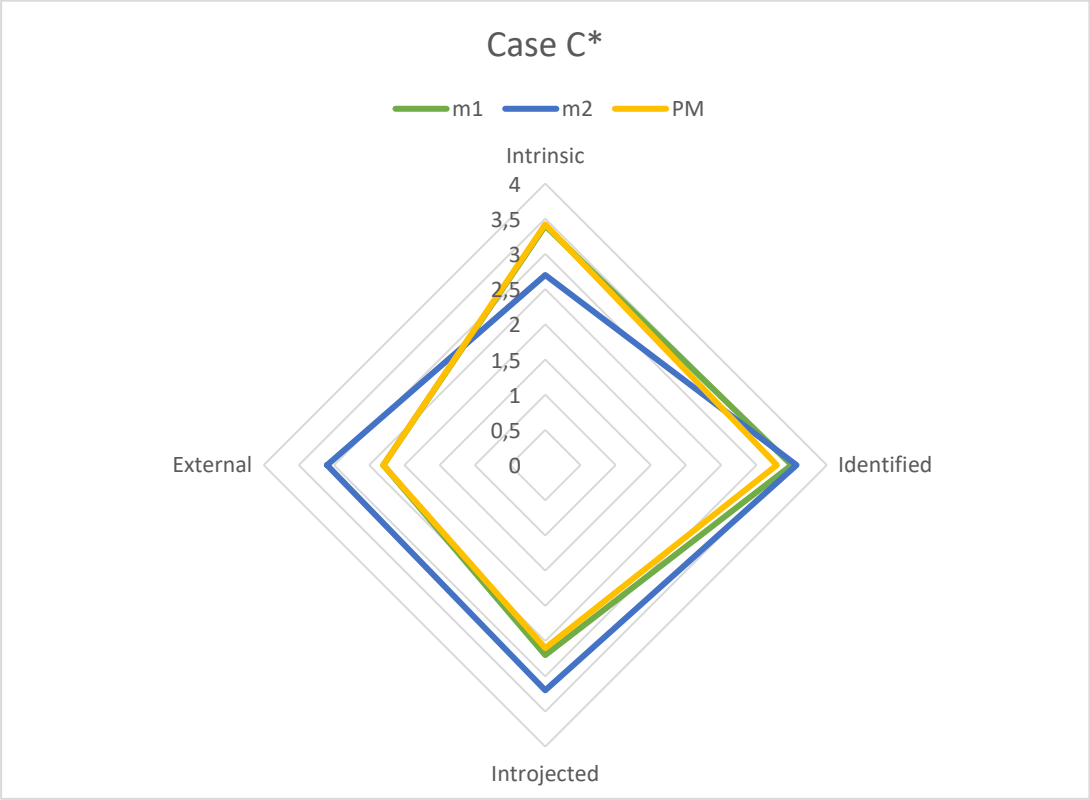


Appendix 10: The teams' motivation to participate in tasks related to their Demola projects during the campaign.



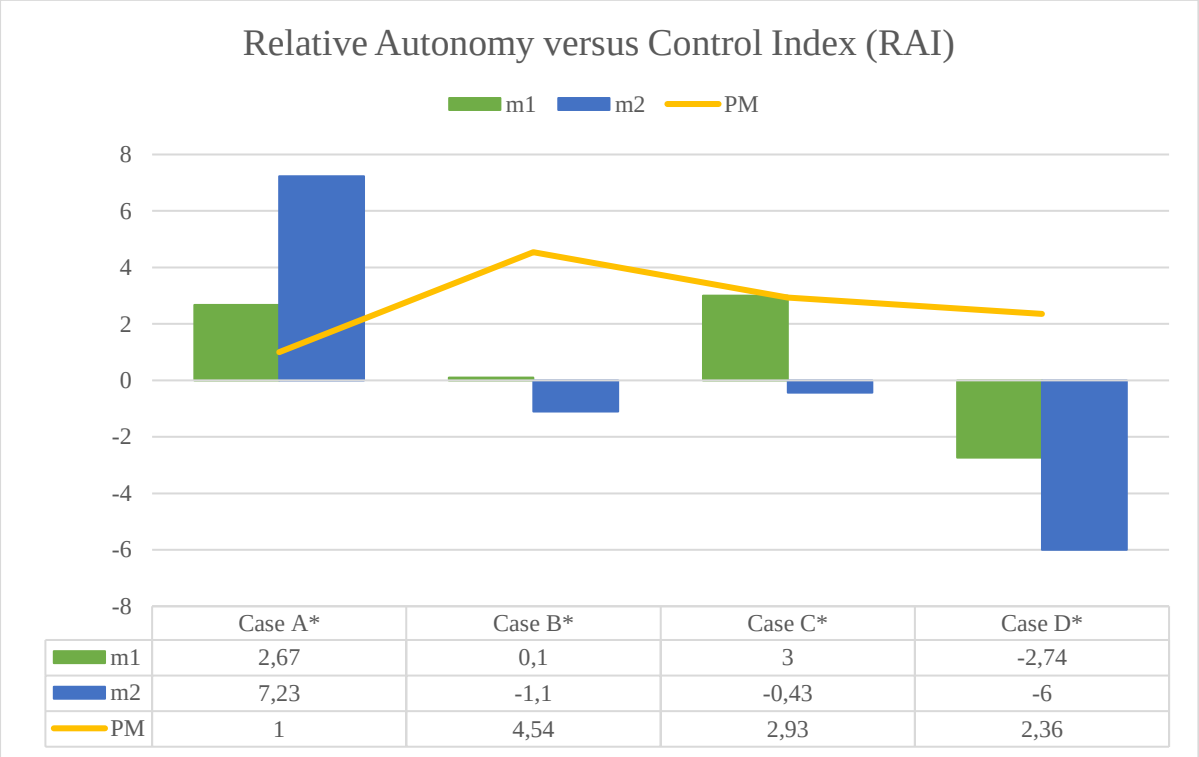
Appendix 11: Radar graphs of the motivation during the campaign for every team member separately (PM stands for “project manager”, m1 and m2 – team members).




Case C*
m1
m2
PM
Intrinsic
4
3,5
3
2,5
2
1,5
1
0,5
0
External
Identified
Introjected

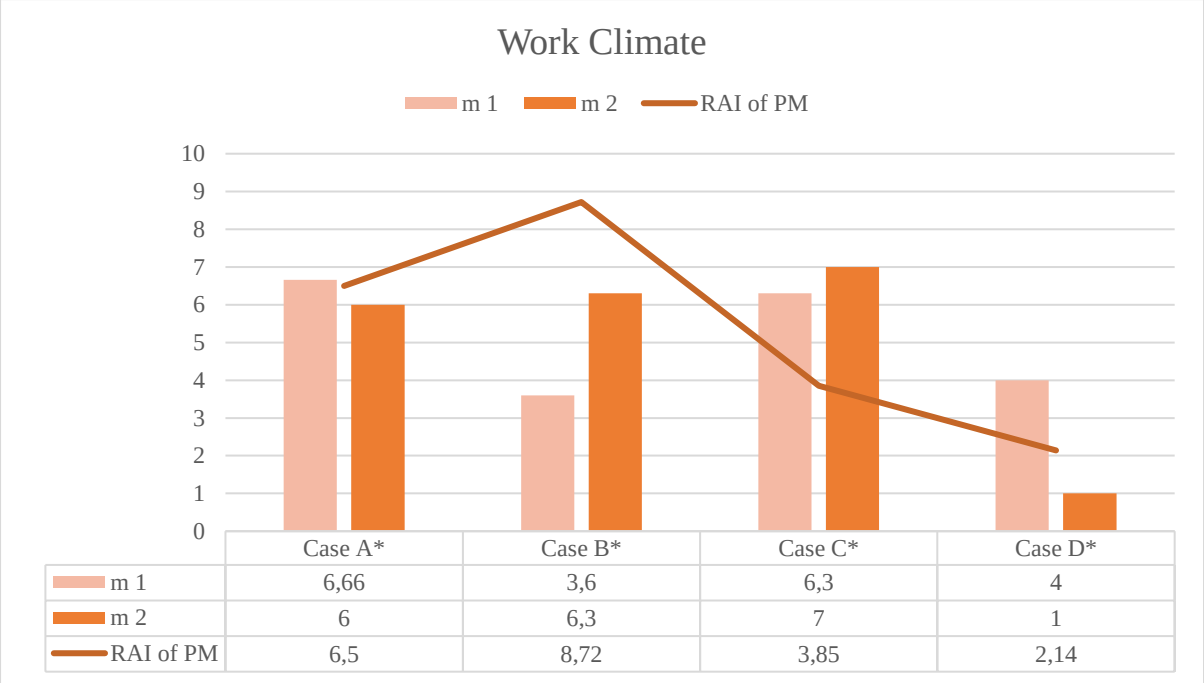

Case D*
m1
m2
PM
Intrinsic
4
3,5
3
2,5
2
1,5
1
0,5
0
External
Identified
Introjected

Appendix 12: Relative Autonomy versus Control Index (RAI) of the individual team members' motivation to participate in the tasks related to their Demola Tampere projects during the campaign (PM stands for "project manager", m1 and m2 – team members).



	Case A*	Case B*	Case C*	Case D*
m1	2,67	0,1	3	-2,74
m2	7,23	-1,1	-0,43	-6
PM	1	4,54	2,93	2,36

Appendix 13: The results of the participants' perception of their project manager's behavior in terms of autonomy supportive versus controlling on the individual level. The line represents the RAI of the project managers' behavior based on the results of the questionnaire designed especially for the project managers (PM stands for "project manager", m1 and m2 – team members).



	Case A*	Case B*	Case C*	Case D*
m 1	6,66	3,6	6,3	4
m 2	6	6,3	7	1
RAI of PM	6,5	8,72	3,85	2,14